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ABSTRACT

The overall goal of this project was to examine the effectiveness of career education by identifying some of the best of the current career education programs and practices which were referred to in Public Law 93-380 and which have been objectively evaluated. The specific objectives were to: (1) gather and analyze reports of career education evaluations in the K-12 grade range completed since June 1974; (2) identify specific career education activities which have been objectively evaluated and show evidence of effectiveness; (3) prepare documentation for dissemination on the activities found effective; and (4) prepare a handbook (CE 018 223) for local career educators which will include evaluation models and guidance in evaluating their activities. Ten of the activities judged to have been most effective on the basis of the evaluation reports were selected (see CE 018 213-222 for individual reports). Based upon review of activity documents and site visits, evaluation descriptions of each activity were prepared and submitted to the Joint Dissemination Review Panel (JDRP) under the Education Division of the Department of Health, Education and Welfare. On the basis of objective evidence of effectiveness, the Panel approved seven of the ten submissions for dissemination through the Office of Education's National Diffusion Network and by its Office of Career Education. (Appended are a complete list of nominated projects, screening criteria documents, and other related forms and information. An executive summary is available as CE 018 823.) (Author/BM)

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AIR-66700-7/78-FR

FINAL TECHNICAL REPORT

IDENTIFICATION OF EVALUATED, EXEMPLARY ACTIVITIES IN CAREER EDUCATION (K-12)

Jack A. Hamilton

Anita M. Mitchell

31 July 1978

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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IDENTIFICATION OF EVALUATED,

EXEMPLARY ACTIVITIES

IN CAREER EDUCATION (K-12)

Abstract

SCOPE

The overall goal of this project was to examine the effectiveness of career education by identifying some of the "best of the current career education programs and practices" which were referred to in Public Law 93-380 and which have been objectively evaluated. The specific objectives were to:

OBJECTIVES

1. Gather and analyze reports of career education evaluations in the K-12 grade range completed since June 1974.
2. Identify specific career education activities which have been objectively evaluated and show evidence of effectiveness.
3. Prepare documentation for dissemination on the activities found effective.
4. Prepare a handbook for local career educators which will include evaluation models and guidance in evaluating their activities.

PROCEDURES

Nominations of evaluated career education activities were solicited from knowledgeable people in the field. Evaluation reports were obtained from these activities and screened through a set of criteria related to quality and effectiveness. The reports were also categorized and analyzed to provide information for use in developing the evaluation models and the practical guidance for local career educators.

Ten of the activities judged to have been most effective on the basis of the evaluation reports were selected. Visits were made to these sites to: (1) validate activity evaluation data and provide additional evaluation information where needed, (2) furnish more detailed information about activity management and operation, and (3) inform project staff of unanticipated outcomes of activities. Based upon review of activity documents and site visits, evaluation descriptions of each activity were prepared and submitted to the HEW Education Division's Joint Dissemination Review Panel (JDRP). On the basis of objective evidence of effectiveness, the Panel approved seven of the ten submissions for dissemination through the Office of Education's National Diffusion Network and by its Office of Career Education.

For each of the ten career education activities visited and submitted for JDRP review, a written project description was prepared.

SPONSORS

Office of Planning, Budgeting, and Evaluation and Office of Career Education, Office of Education, U.S. Department of Health, Education, and Welfare.

Chapter I

INTRODUCTION

Background

This document is the final technical report of a study conducted by the American Institutes for Research (AIR) in the area of career education, under contract to the U.S. Office of Education (USOE). The study reported here aimed to identify and describe evaluated, exemplary activities in career education (K-12). It was intended that descriptions would serve as guides for school districts seeking to improve their evaluation process and to replicate activities which had been proved effective.

The major tasks of the study were to:

- establish criteria for identifying evaluated, exemplary activities;
- search for activities that met these criteria;
- review and screen activities according to these criteria;
- visit those activities identified as having produced objective evidence of effectiveness to obtain further evaluative and descriptive information;
- prepare detailed descriptions of the career education activities meeting the criteria, and prepare summary descriptions for submission to USOE and to the Joint Dissemination Review Panel (JDRP) of the Education Division, Department of Health, Education, and Welfare;
- develop prototype evaluation designs for career education activities; and
- prepare a final technical report including an analysis of evaluation in public school career education activities.

The next six chapters of this report correspond to these seven major tasks with the latter two being combined in Chapter VII. Chapter II includes a discussion of the development, listing and definition of a set of criteria to be applied in reviewing activities. Chapter III describes the steps taken to locate candidate activities and obtain data and documents required to screen activities according to the criteria. Chapter IV describes the methods used to apply criteria to evaluation reports submitted, in order to identify the

most promising activities for site visits. Chapter V summarizes the purposes, procedures, and results of the site visits. Chapter VI presents procedures for recommending evaluated, exemplary career education activities to the JDRP for its review, summarizes decisions by the JDRP on these recommendations, and describes the preparation of expanded descriptions of these activities. The final chapter describes the development of six prototype career education evaluation models developed by AIR staff based on an analysis of evaluation in public school career education activities.[1]

Limits of the Study

A major limitation of the study was its dependence on local education agencies (LEAs) to provide evaluation information. Only those nominated activities that responded to AIR's request to forward evaluation and other activity documentation were included in the study. Not considered were LEAs that: (1) had not conducted evaluations of their career education activity since June 1974, or (2) did not respond to AIR's request for reports of their evaluations, or (3) responded that they did not meet initial criteria established by AIR, or (4) were not currently operating their career education activity.

A second major limitation was the study's need to base its review on evaluation data presented by the LEA, as budget and time restrictions did not permit reanalysis of raw data. Written follow-up, telephone interviews, and, in some instances, site visits were required to provide needed clarifications.

A third significant study limitation was set by initial criteria for screening activities. These criteria, established by AIR and approved by the USOE Project Officer, intentionally limited the selection of activities to those: (1) in which the activity treatment could properly be classified as career education, and (2) for which evidence of effectiveness was statistically analyzed, based on measured achievement and comparison between activity participants and an

[1] The term "activities" was used in the RFP and throughout the project for all efforts in career education including such diverse operations as a high school placement program, infusion of career education concepts into the K-6 curriculum, a project which brings community members into the schools to discuss their jobs and takes students to visit local industries, a guidance program for grades 8 through 12, or a staff development program for K-6 teachers.

appropriate standard. An example of a disqualification for not meeting the first criterion would be an activity designed specifically to impart only job skills. An example of a disqualification for not meeting the second criterion would be a career education activity for which evidence of effectiveness could not be attributed to the impact of the activity because no baseline or comparison was provided against which to judge gains made by the participants. In Chapters II and IV in this report, these and other criteria are defined and the results of their application in screening programs are discussed.

Chapter II

DETERMINING CRITERIA FOR THE EVALUATION OF CAREER EDUCATION ACTIVITIES

General Considerations

A primary task of this study was to identify and obtain information about evaluation of local school career education activities which represent the "best of the current career education programs and practices" referred to in Public Law 93-380. Such information can be used by educators to improve the evaluation process, and can be disseminated to facilitate replication of activities that produced educationally significant outcomes.

Separating activities that produced educationally and statistically significant effects from those that did not required development of a set of well-defined criteria which could be applied objectively and consistently to the review of each submitted activity's evaluation report. In addition to the criteria suggested by the JDRP, AIR staff pursued a number of other sources. These included evaluation models such as Young and Schuh (1975), the California Evaluation Improvement Model (1975), the Title I Evaluation Model (1977), the VISTA Impact Evaluation Model (1977), and the Evaluation of the Work-Education Consortium Project (1977), as well as those implicit in standard evaluation texts and references. Keeping in mind the common problems encountered by staffs of LEAs in evaluating their activities, and the constraints on evaluation imposed by the nature of education agencies, the AIR staff drafted a set of criteria that were both rigorous and realistic, addressing each step of the evaluation process.

The initial drafts of the criteria were submitted first to the AIR internal advisory panelists and then to the external advisory panelists for their review and reactions. A revised draft reflecting input from these panelists was submitted to the USOE Project Officer for her review. Her suggestions were incorporated, and the criteria were approved for application to the activity reviews.

While the criteria were being developed, various sources were being asked to submit nominations of evaluated exemplary career education activities. (See Chapter III for a detailed account of this process.) As nominations began to

pour in, it was apparent that the criteria would need to provide for incremental review - a rough screening first to separate activities that clearly did not qualify from those that might qualify, and then progressively rigid applications of evaluation standards until activities meeting most or all of the criteria would emerge. To facilitate a first level rough screening, it was decided that activities would need to meet the following criteria in order to be eligible for consideration for review:

- The activity had not been commercially published.
- The activity was still operating.
- The activity had been formally evaluated since June 1974.
- An evaluation report had been written and was available.
- The activity could properly be classified as career education.
- The evaluation report concluded that there was evidence of effectiveness.
- The evaluation design included a comparison group/standard of some kind.

This set of preliminary criteria established the domain of potential candidates. Activities meeting these criteria were analyzed according to more detailed and stringent criteria. A list of all criteria is presented at the end of this chapter.

Elements of the Criteria

The criteria established for reviewing the career education activities sought to answer questions in five areas:

- effectiveness: Does the activity do what it claims to be able to do? Are the learning outcomes directly attributable to the activity and not to some other factor?
- importance: Are the nature and magnitude of the outcomes educationally significant?
- replicability: Is the activity sufficiently well-defined and objectively described that it could be faithfully replicated?
- generalizability: Is the evidence of effectiveness likely to be generalizable to other circumstances?
- practicality: Do the required resources and procedures make the activity a reasonable, practical educational alternative?

Evidence of Effectiveness

For a career education activity to be regarded as effective, criteria required that there be sound evidence that it was, in fact, responsible for the observed change in the participants.

Evaluation design. The criteria included use of an evaluation design that allowed valid interpretation of the data and the ruling out of other possible explanations of the results. An important component of such a design is the use of appropriate comparison groups or standards. Among those accepted as appropriate are: (1) randomly assigned control groups (individuals were randomly assigned to the treatment and control groups); (2) nonrandomly assigned control groups (groups that are similar were assigned without randomization to treatment and control conditions); (3) national norm groups; (4) local norm groups (norms for locally developed tests); (5) trend data; (6) experimental expectancy (gains of the treatment group were compared with expected gains as indicated by research); (7) time-series samples; and (8) alternative treatment groups (several treatments were administered, with the possibility of a control/no treatment group used also).

Measures. Although the problem of selecting an adequate evaluation instrument is common to all kinds of educational evaluations, it is especially critical in the area of career education evaluation. The difficulty in identifying appropriate instruments to measure the achievement of career education goals is the most frequently mentioned problem in career education evaluation. The issue facing AIR staff was to determine whether valid and reliable instruments had been used to measure participant change, so that data could be trusted. Measures were deemed acceptable if they were either standardized tests or locally constructed tests with reasonable and verifiable validity and reliability data. With regard to locally developed measures, evidence was sought that the test had been reviewed by someone other than the test developers to judge its content validity, that it had been pilot tested and revised, and that quantitative estimates of reliability had been made.

Availability and management of data. Criteria included the requirement that adequate data be available, and that data management be sufficiently well documented to present reasonable evidence of accuracy and objectivity in data collection. Data available were expected to show significant effects of the activity.

Data analysis. As a minimum, evaluation reports of career education activities were expected to include the following statistical data on both treatment groups and comparison groups or standards: (1) measures of central tendency; (2) measures of dispersion; (3) attrition rate; (4) pre-and posttest distributions (where appropriate), and (5) obtained level of statistical significance.

Interpretation of results. Criteria included evidence of the statistical significance of the results, the consistency of the results, and their educational significance. It was felt that criteria for an activity's effectiveness must not rest solely upon statistical significance, which can be obtained for very small effects by using sufficiently large sample sizes.

The criterion of educational significance considered several factors. First, the size of the activity impact was to be judged by past experience as reflected in the research literature indicating the expected frequency, direction, and size of post-intervention differences between treatment and comparison groups on the measure in question. Second, expert judgment was to be used. Third, a rule of thumb for evaluating the educational significance of a treatment to be used was that the observed posttest scores exceeded the comparison group expectations by at least 1/3 standard deviation. Fourth, the importance of the effects was to be assessed in relation to the Office of Career Education (OCE) nine learner goals (Hoyt, 1977) that reflect the accepted needs in career education, such as competency in basic academic skills, good work habits, and personally meaningful work values. Finally, the cost of the activity was to be compared with the cost of other activities that produced the same effect.

Although evidence of effectiveness was a prime consideration, this was not enough to qualify an activity for detailed review, description, and presentation to the Joint Dissemination Review Panel. Questions of replicability, generalizability and practicality also needed to be addressed.

Process Data Required For Replicability

Evaluation or other reports were expected to provide an adequate description of activity processes. The provision of such information is necessary to permit potential adopters to decide whether or not to try out the activity in their school districts based on an adequate understanding of what constitutes the career education activity and the factors responsible for its successful operation. Information sought included the activity's conceptual framework, its major goals and objectives, its instructional procedures, and its management plan. Information about the number of students involved, their ages, grades,

and other relevant demographic characteristics was also required. Information on teachers included relevant aspects of their training, qualifications, and experience. Information on the context included demographic characteristics of the locale, relevant aspects of the school system (e.g., size and financial status), and the historical background of the activity(e.g., needs assessment efforts). It was also necessary that activity materials be available for dissemination.

Reasonable Start-Up and Recurring Costs

Since activity costs are key items of information for school districts planning adoption, it was necessary to have information about costs. Although differences in total costs and in cost categories exist among activities and locations, it is still important to provide accurate start-up and recurring budget guidelines for administrative, clerical, teacher and teacher-aide salaries, materials, equipment, facilities, consultants, services, travel, testing, and evaluation. To be within acceptable district limits for adoption, total per-student costs must be presented so that any add-on costs for career education are clear.

Final Considerations

The project staff decided that to recommend an evaluated career education activity for consideration as exemplary, a summary judgment which reconciled two independent reviews by staff members must be reached through applying the criteria discussed above and listed at the end of this chapter. The final decision to include or exclude an activity would be based upon a weighing of strengths and weaknesses, since few programs could be expected to be strong on all criteria.

CRITERIA FOR SELECTING EVALUATED, EXEMPLARY CAREER EDUCATION ACTIVITIES

Activity Effectiveness

TREATMENT

OBJECTIVES

Objectives of the activity are relevant to the general goals of career education.

Objectives are either explicitly stated or clearly implied.

PROCEDURES

Procedures represent an implementation of the activity objectives.

Procedures are consistently employed by staff responsible for instructional and diagnostic activities and services.

Procedures or activity components directed at career education objectives are not confounded with nonactivity components.

Procedures provide for ascertaining the entry-skill levels of participants.

Procedures provide for frequent assessment of student progress.

Adequate details of diagnostic and instructional procedures are available to validate descriptions of activity methodology.

EVALUATION

FOCUS

Evaluation data are available on those activity objectives that are relevant to improvement of career education skills.

AVAILABILITY

Information required for validation of activity success can be obtained.

Available information is adequate to validate activity success.

EVALUATION SAMPLE

Critical descriptive and statistical data related to characterizing the activity group are provided.

In instances where the evaluation group was only a portion of the activity group, procedures for selecting the group are specified.

COMPARISON GROUP, IF ANY

Critical descriptive and statistical data related to characterizing the comparison group are provided.

Procedures for selecting the group are specified.

The group is reasonably comparable to the activity participants upon which the evaluation is based.

If a comparison is being made between activity and nonactivity persons, important differences between these groups in kinds and amounts of instructional methods, activities, and services are specified.

CHARACTERISTICS OF THE MEASURES USED	Measures are appropriate to evaluate objectives of the activity.
	Measures are appropriate for activity participants.
	Measures are either standardized tests or are specially constructed tests with reasonable and verifiable validity and reliability data.
SCHEDULE	The data collection schedule for measures and tests administered to activity and comparison or baseline groups identifies exactly when data collection occurred and identifies measures and tests as pre-, during-, post-activity, or follow-up.
DATA PROCESSING	Classification and grouping of raw data for processing is appropriate for methods of statistical analysis used.
DESIGN	The evaluation design provides for an adequately controlled assessment of activity effects in terms of basic objectives of the activity.
STATISTICS	The statistics and statistical analyses used implement the design of the evaluation.
EDUCATIONAL SIGNIFICANCE	Educational significance is demonstrated if the performance of the activity group is greater with respect to activity objectives than would be expected for appropriate reference groups (e.g., using typical instructional materials and procedures with a group comparable to activity participants).
CONSISTENCY OF RESULTS	The evaluation data identified either give promise of replication or are verified by data from adequate replication(s) of the activity.

Activity Operation

STAFF	A role definition is available for each category of activity staff and contains all details required for replication.
	The skills and special training required for the activity staff do not require an unreasonable training period.
PARENT/COMMUNITY INVOLVEMENT	If this is a key component of the career education activity, procedures and guidelines for implementing parent/community involvement contain all details required for replication.
CONTEXT	Significant descriptive details about the activity setting that should be taken into account in replicating the activity at another site can be documented.
COST	(The following cost data are to be reported on a per-pupil and total activity basis.)
	Direct and indirect costs for operation of the activity can be identified.
	Fixed and variable costs of the activity can be identified.

	Installation and maintenance costs of the activity can be identified.
INNOVATIVENESS	The activity can justifiably be said to use features recognized as new, creative, and unusual, or to use traditional practices that have produced exceptional results.
EXPORTABILITY	The various activities, services, organizational details, and key procedural information are amenable for the purpose of wide-scale dissemination.
MATERIALS	The necessary instructional materials can readily be made available in sufficient quantities to permit wide-scale dissemination and replication.
	Procedures and guidelines for the implementation and use of activity materials are specified and indicate the scope and sequence of learning tasks.
EQUIPMENT	Equipment required to operate the activity can be made available in sufficient quantities to make wide-scale dissemination and implementation feasible.
	The cost of such equipment can reasonably be assumed to be within reach of school districts in the United States.
ACTIVITIES AND SERVICES	The activities and services required for carrying out the exemplary practice or activity can be readily supplied to the extent necessary for wide-scale replication of the activity.
COMPLEXITY	The complexity of all media required in the activity is not a limiting factor for its replication elsewhere.

Chapter III

IDENTIFICATION OF CANDIDATE ACTIVITIES

Sources of Nominations of Candidate Activities

Within the first two weeks of the project, the AIR Principal Investigator and the Associate Project Director visited Washington, D.C., and met with appropriate USOE and National Institute of Education (NIE) staff who supplied leads to candidate activities. Close coordination with the USOE Project Officer was invaluable at this point, ensuring that all leads and sources for career education activities known to USOE were explored. Additionally, the Project Officer assisted in identifying specific government staff in appropriate agencies and bureaus who were knowledgeable about sources outside career education that might be funding career education activities. As a result, appropriate personnel were contacted in the following agencies:

- The Department of Health, Education, and Welfare's Office of the Assistant Secretary for Planning and Evaluation
- USOE's Office of Career Education
- USOE's Division of Vocational and Technical Education and its Division of Research and Dissemination (Exemplary Vocational Education Projects, Part D, VEA) from the Bureau of Occupational and Adult Education
- USOE's Bureau of Education for the Handicapped
- The National Diffusion Network Office
- NIE's Education and Work Group
- The Department of Labor
- The National Manpower Institute

In addition, the AIR Principal Investigator attended a Fall 1977 meeting of the National Advisory Council on Career Education in Washington, D.C., and received nominations and suggested sources of nominations from state career education coordinators who also were attending the meeting.

Project staff sought nominations of evaluated, exemplary career education activities from state education department coordinators of career education, vocational education, pupil personnel services, and research coordinating units. Nominations were also solicited from national laboratories and centers, federal funding agencies other than those listed above, third party evaluators, and other individuals and institutions prominent in career education. Finally, appropriate publications and conference material (such as meeting agendas and reports) produced in the past two years were searched by project staff to identify career education activities which might meet the established criteria. Conferences identified included the Commissioner's National Conference on Career Education in Houston, Texas, November 7-10, 1976, the annual forums on education and work supported by NIE, regional career education conferences, and Office of Career Education mini-conferences.

Contacting Activity Nominators and Candidate Activity Directors

This section briefly summarizes the procedures used in contacting nominators and directors of candidate career education activities. A more detailed description of the monitoring process involved in these contacts is shown in Appendix C.

As soon as the domain of nominators of exemplary career education activities had been defined, the names and addresses of the nominators were compiled resulting in a list of 296 nominators. A copy of the letter sent to nominators requesting nominations of evaluated exemplary career education activities is displayed in Appendix C. As nominators responded to their letters, a thank you letter was sent to each nominator; a copy of this letter is displayed in Appendix C. Ultimately, a total of 394 nominations was received.

Each nominated activity director was sent a letter. A total of 394 letters were written; a copy of this letter appears in Appendix C. In the letters, project staff explained the purposes of the study and how the activities being contacted had been identified. Also stressed was the need for evidence of activity effectiveness that would demonstrate success. A minimum requirement for this evidence was that some comparison basis be provided so that gains made by activity participants could be clearly attributed to the impact of the career education activity. A copy of the activity's objective evaluation report was requested and, if not included in the report, the following information

was also solicited:

- Activity developer;
- Source and level of funding;
- Years in which the activity has operated, and years in which evaluation data were collected; and
- Target population.

A thank you letter was sent to each nominee who submitted evaluation reports (see Appendix C):

If the directors of nominated career education activities responded by stating that their activities did not meet AIR's preliminary qualifications for an evaluated exemplary career education activity, those individuals were sent self-disqualifying thank you letters (see Appendix C). To assure receipt of a maximum number of evaluation reports, a suspense file was established and, where necessary, a follow-up letter was sent. A copy of this letter is displayed in Appendix C.

In summary, evaluation documents were sent by 257 activities; 137 other activities did not submit materials. A master list of all nominated activities contacted by AIR, showing those which did not submit documents, those which did submit documents, and those 10 activities which were recommended to the JDRP for consideration as exemplary, is shown in Appendix A.

Chapter IV

APPLYING CRITERIA TO SCREEN NOMINATED ACTIVITIES

The Document Review System

After activity documents had been received and logged in, each activity evaluation passed through an intensive, multiple review process.

Level I Screening

The process began by having two staff members review each set of activity evaluation documents, each producing an independent yes or no determination based on the preliminary screening criteria listed in Chapter II of this report and shown again below:

- The activity has not been commercially published.
- The activity is still operating.
- The activity has been formally evaluated since June 1974.
- An evaluation report is written and available.
- The activity can properly be classified as career education
- The evaluation report concludes that there is evidence of effectiveness.
- The evaluation design includes a comparison group/standard of some kind.

This was called the Level I review. If an activity evaluation failed to meet any of these preliminary screening criteria, it was dropped from further consideration. The majority of local activity evaluations failed to pass the screening at this level. An Activity Analysis Form, incorporating the Level I criteria, was developed and used to record these reviews. A copy of this form is shown in Appendix B. In all, 64 evaluation reports passed the screening at this level; these were evaluated according to more detailed criteria. The most common reason activity evaluations failed to pass Level I was lack of a comparison group or standard in the evaluation design.

Level II Screening

The second level of the multiple review process made use of the entire effectiveness segment of the Criteria for Selecting Evaluated, Exemplary Career

Education Activities displayed at the end of Chapter II. This segment was expanded into an activity review document called Criteria for Level II Screening which is shown in Appendix B. To aid AIR staff in applying these criteria, a set of Instructions For Using Level II Criteria To Screen Career Education Documents and a Coding Sheet For Level II Criteria were developed and used. The latter documents also are presented in Appendix B.

Following the initial Level I screening, the 64 activity evaluations that passed were rated using the Level II rating documents. To standardize and ensure reliability of this process, ten activities were rated independently by all six senior project staff members. Interrater reliabilities were estimated and the rating procedures were revised as necessary to ensure reliability. Each subsequent activity was rated independently by two members of the senior staff. When the two raters disagreed a third rater was called in to help resolve the issue.

The use of senior research personnel at this stage of the selection process was justified by the need to obtain valid estimates of crucial dimensions contained in the criteria. A yes-no categorization was assigned to each dimension, and an overall decision among several options was reached for each activity:

- Accept activity at Level II
- Provisionally accept activity (pending receipt of more information)
  - high probability
  - low probability
- Reject at Level II

For either of the last two decision options (provisional acceptance or outright rejection), raters were required to indicate criteria which the activity failed to meet or the additional information needed.

Only a few activity evaluations received an unequivocal "acceptance" judgment from both raters at the Level II review. For a small number of others, more information was sought by telephone contact before a final decision of either acceptance or rejection could be reached. Ultimately, 20 activity

evaluations passed Level II review. The most common reasons for rejecting an activity at Level II were the lack of testing for statistical significance of student outcome data; flaws in the evaluation designs, especially the manner in which comparison groups were formed; and faulty data collection/ management procedures that could have introduced error or bias, thus invalidating the results.

Level III Screening

The list of Level III criteria representing the final activity screening was relatively long. Many criteria were needed to provide for thorough, systematic evaluation of every important detail--not just of activity effectiveness, but of every feature that might conceivably be critical to dissemination and subsequent successful implementation of the activity at another site. Hence, the entire list of criteria shown at the end of Chapter II of this report was utilized, including the second segment that focused on details essential to the total activity and "processes" that must be communicated to a prospective user. To qualify as an exemplary career education activity, it was essential that instructional and management processes be well-defined to enable administrators and teachers to replicate or systematically modify the activity in another setting.

Several documents were prepared for staff use with Level III reviews, including: (1) a list of Criteria for Level III screening, (2) a set of Instructions for Applying Level III Criteria, and (3) a Coding Form for Level III Criteria. These documents are displayed in Appendix B.

Activity evaluations which passed through the review system described in this chapter and received positive ratings from six reviewers across the three levels of review were considered to be candidates for site visitations. When several likely activities had been identified, the project staff held an evaluation review meeting to finalize the decisions as to which should be visited. There were two purposes for such meetings: (1) to allow staff members to raise the sharpest possible criticism of each activity evaluation, so that weaknesses could be recognized and activities dropped before site visiting and (2) to point up any questions or needs for additional data which might enhance the arguments in favor of an activity, so that site visit teams could plan to collect the information while on site. The review meetings were attended by the six senior staff reviewers and the Principal Investigator.

None of the 20 activities reviewed at Level III met all the criteria for sound evidence of effectiveness and well-managed operations, based on examining their evaluation reports and contacting staff for more information and clarification. It should be noted that minimal requirements for meeting activity process criteria could not be specified as clearly as could requirements for sound evaluation, and thus were not given as much weight in the final determination. Processes and costs were not examined closely until site visits were made.

Of the 20 activities, 11 were finally judged to merit site visiting. Although rated very highly, one of the eleven activities selected - the Career Intern Program located in Philadelphia, Pennsylvania - had already been approved for national dissemination by the Joint Dissemination Review Panel. Thus, it was decided to restrict site visiting to the ten remaining activities. The next chapter discusses the site visits to the ten activities selected and the outcomes of these visits.

Chapter V

SITE VISITS

Purposes

Initial documentation and evaluation revealed career education activities that were promising candidates for dissemination. The USOE Project Officer and Office of Career Education staff approved AIR's recommendations of activities to be visited. Then, these ten were site-visited. Purposes of the AIR staff visits were first, to validate the descriptive and evaluative data included in activity documents and to obtain any additional information on the evaluations as needed; second, to secure more detailed information about the management and operation of the activities in order to write summaries for submission to the Joint Dissemination Review Panel and to write detailed descriptions of activities suitable for dissemination; third, to identify those positive but unanticipated outcomes resulting from the activity by visiting the locale, talking with local staff, and observing classroom activities and management techniques; fourth, to learn of any problems local staff might have experienced with the activity and how they might do it again with the benefit of hindsight; and finally, to furnish opportunities to obtain exhibits of locally-produced materials for possible use in dissemination.

Obtaining Cooperation of Local Activity Personnel

Soliciting school cooperation prior to the actual site visits was deemed vital to laying the groundwork for productive and effective visits. It was essential that these visits be structured to minimize the burden placed upon school and activity personnel, to be cost effective for the site visit staff, and to result in the greatest amount of specific information being collected in the shortest amount of time--with the least intrusion.

The first contact with local school personnel was made by telephone. In this call, AIR staff emphasized potential rewards of involvement with the project. Such rewards included possible national visibility and recognition for the local career education activity, a sense of professional contribution, and the broadening of professional relationships with organizations outside

the local agency. Also stressed was the opportunity to contribute to the enhancement of the educational achievement and employability of large numbers of students across the country through improved career education.

The introductory phone call was made by the Associate Project Director whose primary responsibility was that of senior field evaluator. This same staff person maintained all contact with school personnel from initial telephone call to final follow-up, including serving as the senior member of the teams that visited all ten sites. An effort was made to relate to a single knowledgeable and cooperative school staff member--usually the activity director--to make appointments and to arrange for access to the needed information. The telephone call was used to introduce AIR and its representative, to review briefly the AIR project and the purpose of the site visits, to solicit cooperation, to obtain the names of school administrators who should be contacted regarding the effort, to discuss advantages that would accrue to schools participating in the project, to assure school staff of minimal disruption during site visits, and to alert the activity director to the detailed letter that would follow.

The follow-up letter (See Appendix C for a sample) described the proposed schedule of activities for the site visit, the kinds of information to be collected, and the people the site visit team needed to interview. In a few instances, the letter was, in turn, followed by a phone call to the school to clarify further the proposed effort and to solicit the school's agreement to proceed.

Pre Site Visit Preparation

An Activity Data Form was developed to enhance accuracy, comparability, and comprehensiveness in the collection of the data. The headings corresponded to the format that was to be used for presenting and summarizing data in the final project descriptions, and for preparing a submission to the Joint Dissemination Review Panel.

- Project Overview
- Program Development
- Materials and Activities
- Parent and Community Involvement
- Staffing and Management
- Costs
- Evidence of Effectiveness

In preparation for a visit, AIR staff reviewed all documentation and evaluation material that had been sent to AIR, as well as reports of reviews by project staff, and completed as much of the Activity Data Form as possible from those sources. This gave the site visitors familiarity with the activity and focus for their inquiries, and reduced time spent on site. Questions were formulated, based on areas for which little or no documented information had been provided, and were sent ahead to the director. This proved to be especially helpful in preparing activity staff for AIR's visit and for scheduling interviews with activity or district personnel who were knowledgeable about certain areas of activity operations.

Team Responsibility and Activities for Site Visits

Each team consisted of two AIR project staff members--the senior field evaluator and one other senior staff person--who visited a site for two to three days.[1] The Principal Investigator accompanied the team on the first site visit, and the USOE Project Officer accompanied the team on the second visit. Based on feedback from both the Principal Investigator and the USOE Project Officer, site visit protocol and procedures were modified for subsequent site visits. As noted above, the senior field evaluator made the initial contacts with each career education activity and continued to serve as the liaison between AIR and the school staffs during site visiting and for the duration of the project.

[1] One visit was made by the senior field evaluator alone. This was done because of budget limitations which resulted from the team being snowed out of one site on two separate scheduled visits.

A standard agenda of activities for site visits was prepared, but actual use of time was dictated by the information needs for each activity. Site visitors made appointments with the activity director and other key personnel. Interviews were supplemented by visits to classrooms and other learning activity situations and by interviews with students, teachers, specialists, and other school personnel. The site visitors reviewed their notes at the end of each day of visitation and revised their schedules of inquiry based on what they had learned that day. Remaining site visit time was used for the collection of data and materials. Prior to departure, the site visit team reviewed the Activity Data Form with the activity director to ensure that all pertinent information either had been obtained or would be sent later.

Schedule

Visits were made to ten activities. The schedule below shows the site visit dates, location, and title for each.

	Dates	Location and Activity Title
1.	January 5-6	Ontario, California--Project MATCH
2.	January 9-10	Prince George's County, Maryland--Fostering a Team Approach to Career Education
3.	January 12-13	Coloma, Michigan--Project CDCC
4.	January 16-17	Akron, Ohio--Career Development Program
5.	January 23-24	Ceres, California--Project CERES
6.	January 26-27	Pima County, Arizona--Developmental Career Guidance Project
7.	February 9-10	Louisville, Kentucky--Project EPIC
8.	February 13-15	Fort Lauderdale, Florida--EPIC, Inc.
9.	March 13-15	Greenland, Arkansas--Project CAP
10.	March 22-23	Seattle, Washington--Project Equality

Post Visit Follow-up

During the ten site visits, additional information and documentation were obtained for each activity. This new information was reviewed to determine whether or not it substantiated earlier conclusions regarding activity effectiveness. In several instances, AIR staff and the local activity directors decided that if more appropriate data analyses were computed, it would enhance the evidence of activity effectiveness. In some instances, these additional data analyses were carried out by the local staffs, while in others they were computed by AIR staff. In addition, letters or telephone calls were used to clarify any apparent discrepancies in information obtained on activity operations or to secure further details. The nature of the summaries prepared for the JDRP, the results of the Panel's reviews, and the activity descriptions are discussed in the next chapter.

Chapter VI

PREPARING JDRP SUBMISSIONS AND WRITING ACTIVITY DESCRIPTIONS

Purpose

Two documents were prepared on each of the ten career education activities visited. Ten-page evaluation descriptions of each activity were prepared by AIR staff according to a designated format and submitted to the JDRP. In addition, 35-page activity descriptions were written in sufficient detail to permit decisions to be made regarding the desirability of attempting locally modified replications of the activities, and to indicate sources for further information about the activities.

Review by Joint Dissemination Review Panel

Background, Purpose, and Structure of the JDRP

The Joint Dissemination Review Panel was originally established by the Education Division of the Department of Health, Education, and Welfare in 1972. The joint U.S. Office of Education - National Institute of Education Panel currently has 22 members, eleven staff from each agency, appointed respectively by the Commissioner of Education and the Director of NIE. Panelists are selected for their ability to analyze and understand evidence of effectiveness furnished by program evaluation data, and also for their general knowledge and experience in education. The Panelists make every effort to ensure that their decisions rest on a broad base of personally unbiased and methodologically sound judgments (Evans, 1978).

The JDRP meets periodically to review the evidence of effectiveness submitted for a wide variety of federally supported educational products and practices, with effectiveness being the sole criterion for approval by the JDRP. The Panel is charged with the responsibility of ensuring that educational interactions - projects, products, or practices - have been shown to have positive impacts on their recipients before they are disseminated with federal funds or endorsed by the Education Division (Tallmadge, 1977).

Preparation of Summary Descriptions for JDRP Review

A summary (10 page maximum) of activity methods and evaluation results was prepared for each of the ten activities recommended as exemplary by AIR staff and the USOE Project Officer. Each summary has two main sections. In the first, key activity strategies are described. These are features that appear to be contributing to the outstanding gains of participants as judged from on-site observations, examination of activity documents, and interviews with activity staff. While the Panel looks primarily at the evidence of effectiveness presented in the second half of the summary, the description of the activity must be sufficiently detailed to enable the Panel to grasp the key features of the activity that produced the impact.

The second section of the JDRP summary presents evaluation evidence supporting the claim of activity effectiveness. The details furnished include information on the characteristics of activity and comparison groups, identification of instruments used to measure achievement or attitudes, and results and interpretation of data analyses. This information is summarized in a manner that highlights the rationale for recommending the activity to the JDRP.

Draft versions of the JDRP summaries were forwarded to the USOE Project Officer for review well before JDRP meetings were scheduled. The Project Officer reviewed the draft summaries and circulated copies of them to Office of Career Education staff members for their reactions. Subsequently, AIR staff received recommendations for revisions that would clarify the information presented, and they requested supplementary information on points that might be questioned during the JDRP meeting.

Final versions of the activity summaries were submitted by the USOE Project Officer to OCE staff, to other USOE programs which may have provided funding, and finally to the JDRP administrative officer. Included with each summary was a completed Social Fairness Form that certified the absence of race, sex, age, economic status, and handicap bias in activity materials and procedures. A copy of the Social Fairness Form developed by AIR project staff for this purpose is displayed in Appendix D. These summaries were studied by Panel members in preparation for discussing and determining each activity's worthiness of wide-scale dissemination and official endorsement by the Education Division of the Department of Health, Education, and Welfare.

Procedures and Outcomes of the JDRP Meetings

The JDRP met three times to review AIR's submissions; three activity summaries were considered at the first session, three at the second, and four at the third. In each case, the activities were represented by the local directors, an AIR project staff member, and an OCE representative who introduced the other two. Questions from the Panelists about specific points in each submission were directed at the activity director and at the AIR staff member. Following answers to the questions, the Panel members voted as to whether the activity should be approved for dissemination; a majority vote was required for approval.

At the first meeting, two of the three submissions were approved. At the second meeting, one of the three activities was approved; however, one of those not approved was resubmitted and subsequently approved. At the third session, three of the four submissions were approved. The seven activities approved for dissemination by the JDRP are shown below.

Activity Title	Location
Career Development Program	Akron, Ohio
Developmental Career Guidance Project[1]	Pima County, Arizona
Project CAP	Greenland, Arkansas
Project CDCC	Coloma, Michigan
Project CERES	Ceres, California
Project Equality	Seattle, Washington
Project MATCH	Ontario, California

The Panel approved only the primary segment (grades K-3) of Project CERES for nationwide dissemination. With regard to the intermediate component (grades 4-6) of Project CERES, the Panel stated that the evidence of effectiveness furnished by the evaluation was insufficient to warrant approval. However, the Panel encouraged the activity director to submit new data at a later time on the effectiveness of the intermediate component.

The Panel also stated several caveats regarding the evidence of effectiveness furnished with regard to Project CDCC. The Panel suggested that statistical tests other than the chi-square test (such as Analysis of Variance or t-tests) might have dealt better with the instances in which treatment or comparison

[1]This is the activity that was resubmitted.

classes were comprised of small numbers of students. Furthermore, the Panelists commented that a statistical analysis of the differences in reading scores between treatment and comparison school students would have determined whether or not those differences were at least partly accountable for the between-school differences in student performance on unit tests.

To the director of the Developmental Career Guidance Project, the Panel strongly urged that data concerning several teacher and student variables possibly correlated with the treatment variable be included in a second JDRP submission. Such data would allow the Panelists to consider the exclusive relationship of the treatment to student scores on the activity criterion measures. A subsequent search of the school files by the activity director showed that these data did exist. They were put into tables and included in a revised submission which was forwarded to the JDRP for a second review. The outcome of the second review was that the JDRP approved the Developmental Career Guidance Project for nationwide dissemination.

The Panel suggested to the directors of the three activities which were not approved that there were needs for stronger evidence of activity effectiveness and for improved evaluation designs, permitting unequivocal conclusions to be reached regarding impact of activity materials and procedures on target students. The specific reasons given by the Panel for not approving these three activities are discussed below.

With regard to the EPIC, Inc. activity located in Ft. Lauderdale, Florida, the Panel did not approve it for dissemination because the data presented on activity instruments did not furnish sufficient evidence for the following questions to be answered satisfactorily: (1) Are the instruments unable to detect important differences among well-implemented programs?, or (2) Are the instruments reliably measuring small differences among poorly-implemented programs?

The Panel did not approve Project EPIC located in Louisville, Kentucky, for dissemination stating that more evidence of activity effectiveness was needed and that a different evaluation design should be employed. The evaluation design described in the submission documents utilized regression analyses that did not permit unequivocal conclusions to be reached regarding impact of project activities on target students. In addition, the discrepancies resulting from use of the regression analyses, i.e., differences between predicted and actual performance of students on achievement measures, were sufficiently small in magnitude to raise doubts among the Panelists that they were in fact educationally significant.

The activity, Fostering a Team Approach to Career Education, located in Prince George's County, Maryland was not approved by the Panel for dissemination for the following reasons. Differences between treatment and comparison groups in student performance on the criterion measure used by the project were sufficiently small in magnitude to raise concerns among the Panelists that those differences were in fact educationally significant. The Panel suggested that there were needs for stronger evidence of project effectiveness and an evaluation design permitting unequivocal conclusions to be reached regarding impact of project activities on target students.

On a percentage basis, 70% of AIR's submissions to the JDRP were approved for dissemination. This approval rate compares favorably with the average approval rate of 55% for all activities reviewed by the Panel since it was formed.

Preparation of Activity Descriptions

The format of the activity description permitted the writer to go considerably beyond the essential facts needed to determine whether or not the selection criteria had been met. It included provision for the necessary information that would go into a dissemination package to permit replication of the activity. The outline for writing descriptions consisted of eight major headings with several subtopics under each. Writers generally followed the outline, but differences occurred among descriptions because of the nature of the information available and the unique character of each activity. Below are summarized the content and emphasis of each of the eight major segments of the detailed activity descriptions.

In the one-page Project Overview section, the reader is introduced to the activity through brief descriptions of its various aspects. Those facets of the activity highlighted include: (1) Title and Location; (2) Type (e.g., infusion); (3) Project Director's Name; (4) Setting; (5) Staff; (6) Goals; (7) Evaluation Design; (8) Materials; and (9) Cost. The Program Development section describes the reasons why the activity began, its goals, its relationship to the local school system, and aspects of the community that influenced planning of the activity. If applicable, it also identifies persons who were instrumental during the planning phase and how the activity changed since it began. The Materials and Activities segment describes in detail how the career education activities

are implemented both inside and outside the classroom and includes teaching techniques, curricular sequencing, assessment of student achievement, facilities, and materials and equipment used.

In the Parent and Community Involvement section, the key roles of outside-school groups in the career education activities are discussed. Project staff are described in the Staffing and Management section, including descriptions of their qualifications, responsibilities, recruitment procedures, etc. Additional information is presented on activity management policies and inservice training activities. In the Costs section, a display is furnished of budget information provided by the activity staff, with special attention given to start-up expenses and continuation costs. Also listed is the per-student cost of the career education activity. The Evidence of Effectiveness segment summarizes the evidence of activity effectiveness, which was prepared in greater detail for AIR's activity submission to the JDRP, indicating its impact on student achievement. A Conclusion capsules the merits of the project, registers any necessary caveats, and summarizes the prospects for replicating the project in other settings. Appendices with key activity documents are attached to almost all of the activity descriptions as aids to school districts interested in adopting the activities.

Review and Revision

Following the drafting and editing by AIR project staff, activity descriptions were mailed to the site for review by local staff. Revisions and changes suggested were incorporated into the descriptions which were then submitted to the USOE Project Officer for review. The descriptions were revised based on reactions received from the USOE Project Officer, and were then submitted to the Office of Education as project deliverables.

Throughout the drafting, review, and revision process, attention was consistently given to preparing materials both useful and attractive to local school staffs. The layout of the descriptions facilitates access to specific items and topics. Devices such as frequent side headings, boxes, and other highlighting techniques are used. To ensure appeal to all members of a large and diverse audience, the descriptions are written in a non-technical, straightforward style that avoids the use of jargon.

Chapter VII

DEVELOPMENT OF HANDBOOK OF EVALUATION MODELS

Rationale from RFP

The RFP for this project stated that the first objective of the project was to "Obtain information about evaluation in local school career education activities which (1) can be used by educators to improve the evaluation process, and (2) will help define feasible evaluation approaches in career education today." The RFP further stated that one task of the project would be to "Prepare prototype evaluation designs for five additional career education activities." Another related task was to prepare the analysis on evaluation in public school career education activities.

AIR's Proposal

In its response to these sections of the RFP, AIR proposed the following: "...for purposes of preparing the five prototype evaluation designs for use by career education evaluators, the decision-making model ... will be emphasized. This model will help the evaluator and decision maker work together to address specific key questions, which will result in data collection and analysis procedures carefully targeted to the use of the evaluation results." The proposal suggested three of a number of possible organizers, giving advantages and disadvantages of each approach; tentative focus was to be on identifying evaluation questions career educators need to ask, related to decisions they need to make.

Organizers Suggested by Review of Activities

AIR staff began its review of reports of evaluation of local career education activities from the perspective of identifying the questions and decisions which the proposal suggested could be used as organizers. Before long it became apparent that there was considerable overlap in these questions and decisions for different types of career education activities, and the staff began to explore other organizers that might form logical foci for the five

models to be developed. It seemed important to select organizing factors that would help local practitioners decide which of the five models to apply in evaluating their activities. The staff used a sample of the evaluation reports being reviewed to test the workability of the various organizers.

It soon became apparent that the local evaluations could easily be categorized according to types of activities: curriculum infusion, supplementary activities, staff development, product development, and development of facilities. In discussion with the Project Officer, it was decided that these types of activities would become the organizers for the evaluation models. A sixth model, directed toward evaluation of indirect interventions, was added. Although none of the activities being reviewed reflected this type of activity, the experience of AIR project staff and the fact that one of OCE's nine learner goals is directed to bringing about environmental changes to facilitate career development, made this additional focus an imperative. The suggested organizers, along with an outline of probable contents of the models, were submitted to the internal and external evaluation panel members for their review and reaction. These groups unanimously approved the concept of using types of activities as organizers, and suggested minor variations in the outlines. At this point the Handbook outline was submitted to, and approved by, the USOE Project Officer.

Identification of Writers for the Six Evaluation Models

AIR staff members and members of the AIR internal advisory panel met to discuss the intent, content and format of the models, and to assign writers for each. All writers agreed that each model would be reviewed by two of the internal advisory panel members and by the Principal Investigator before being submitted to the external panel members for further review and recommendations. After revisions were completed, the models were submitted to, and approved by, the USOE Project Officer.

Factors Affecting the Focus of the Handbook

As indicated in the first two sections of this chapter, the plan was to present the models in a Handbook which discussed problems local evaluators encounter (as reflected in the evaluation reports being reviewed) and which

presented evaluation models which the local evaluator could easily and effectively apply. However, several factors affected the original plans. Whereas the staff had expected to derive from the local project reports a list of common evaluation problems, along with examples and possible solutions, and to present these as a rationale for using the Handbook, a plethora of similar documents began to emerge. The JDRP Ideabook by G. Kasten Tallmadge (1977), The Design of Career Education Evaluations in 1975-76 by Deborah G. Bonnet (1977), and the series of five Career Education Measurement Handbooks under development by the Center for Vocational Education, Ohio State University (1978), are among the documents which appeared early in the project and which did a rather thorough job of covering much of the intended content of the Handbook. These documents were examined to see if some of the most common problems project staff were encountering in local evaluations might not have been addressed by one or more of these documents, but no important missing problems emerged.

In discussion with the USOE Project Officer, AIR project staff decided to shift the focus of the Handbook to provide local evaluators with some self-help materials that were not available in the other recent documents. Rather than providing extensive information about major deficiencies in local programs (as is done in some of the documents referenced above), the staff decided to take a different approach. The Handbook rationale would present the purposes of the model, namely, to help local practitioners: (1) monitor the implementation process and provide information to help make management decisions, and (2) assess the effectiveness of their career education activities. In addition, the rationale would present guidelines for deciding whether or not to evaluate, assurances that evaluation need not be an onerous task, and a caveat that the experimental research paradigm is not always appropriate.

The rationale would be followed by the six evaluation models, each focused on a different type of career education activity (as identified in the section on organizers). Instead of a lengthy discussion of problems and solutions, each model would include in its presentation the steps necessary to avoid those problems that characterized local evaluations of similar activities. By focusing on ways to avoid the problems instead of on the problems themselves, the writers hoped to encourage local practitioners to adopt/adapt one

or more of the models to evaluate their career education activities. Each model would also suggest the kinds of questions frequently asked and decisions that might need to be made based on the evaluation of that type of activity.

Guidelines to the writers included relating each model to the nine OCE learner goals and those sections of the Career Education Incentive Act (PL 95-207) which could most appropriately be addressed by that type of activity; typical activities that would lend themselves to evaluation by that model; use of a conversational style and simple practitioners' language; use of second person and a friendly "you-can-do-it" tone; and anticipation of, and provision of answers to, practitioners' questions and concerns. A step-by-step approach was encouraged, with examples furnished wherever practical. Models were to be kept brief and easy to follow. These guidelines set the tone for model development.

To capitalize on the different expertise and perspectives of the model writers, only a very brief model outline was suggested. Creativity and individuality were encouraged; no writer read any other writer's model until his/her own first draft was completed. It is interesting to note that although the models differ widely in length, complexity, style and format, all do communicate with the practitioner (according to reviews of internal and external advisory panel members, as well as the project's Principal Investigator and acting Project Director), and all do contain a basic core of steps that experience has shown are necessary to any sound evaluation. All do stress the decision-making thrust of evaluation, and all do encourage the local evaluator to modify the model to fit his/her program needs.

To further the thrust of the Handbook, which is aimed at encouraging local practitioners to apply sound evaluation models to their efforts, a professional artist provided illustrations. The final Handbook consists of a rationale chapter and chapters on six evaluation models: models for evaluating Curriculum Infusion, Staff Development, Product Development, Facilities, Supplementary Activities, and Indirect Interventions.

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APPENDIX A
List of Nominated Projects

The following List of Nominated Projects contains the location and title for each project that was nominated as a potential evaluated, exemplary career education activity. Almost all of these projects were nominated by a person from our Nominator List. A small number of project titles were obtained informally from career educators. Each project on this list was sent a letter requesting that materials be sent describing the program evaluation. Although most project directors responded to this request, some did not respond. Some sent a letter disqualifying themselves because their project did not meet stated requirements.

Those 137 projects which either did not respond or disqualified themselves are marked with a "#" on the list. Those 257 projects which did respond are marked with either one asterisk (*) or two asterisks (**). One asterisk means they did not pass all three levels of the AIR review process. Two asterisks means they were one of the ten activities recommended to the HEW Education Division's Joint Dissemination Review Panel (JDRP) for consideration as exemplary activities.

The projects are listed by state and city. If the name of a sponsoring organizations is available (e.g., school district or business), that organization's name is indicated on the last line under "Project Title."

Following is a legend explaining the three symbols used in this list:

\# - project materials were not received; or
project was self-disqualified

* - project materials were received but project did not pass AIR's review

** - project materials were received; project was recommended by AIR staff to JDRP

List of Nominated Projects

Project Location	Project Title
ALABAMA	
Carrollton	* Project CELL Pickens County Board of Education
Evergreen	* Experienced Based Career Education Operation with 670 11th and 12th Grade Students Conecuh County ACTIO-N
Opelika	* A School-Community Career Education Project Opelika City Schools
Tuscaloosa	* Infusion of Career Education into K-8 Grades Project Tuscaloosa Board of Education
ALASKA	
Anchorage	* Anchorage Borough Exemplary Career Education Project Anchorage Borough School District
Kodiak	* KODIAK Career Education-2, Experienced Based Career Education Kodiak Island Borough School District
ARIZONA	
Buckeye	* Career Education Project Buckeye Union High School District
Glendale	* Westside Area Career/Occupations Project (WACOP)
Mesa	* Cochise County Career Education Project Information Analysis Associates
Mesa	* The Community Resource Component Center for Career Development
Mesa	* Career Education Project Mesa Public Schools
Mesa	* Career Education Project - Title III Mesa Public Schools
Mesa	* The Miniproposal Component Center for Career Development
Mesa	* Springboards for Learning Center for Career Development
Phoenix	* Comprehensive Career Education Project Roosevelt School District #66

Project Location	Project Title
Phoenix	# Project Work
Thatcher	* Tri-County Career Education Eastern Arizona College
Tucson	** Pima County Developmental Career Guidance Project
ARKANSAS	
Greenland	** Project CAP Boston Mountains Educational Cooperative
Little Rock	* A Team Approach to Develop and Implement an In-School Cluster Structure Designed for Occupational Exploration and Initial Job Preparation Arkansas Department of Education
Monticello	* An Exemplary Career Education Project for Southeast Arkansas Monticello-Drew County School District
Pine Bluff	* Design and Development of a Pragmatic Pre-Employment Training Curriculum for Mentally Retarded Youth
CALIFORNIA	
Burlingame	* I-ECC Career Education Incremental Improvement Project, K-12 Industry-Educational Council of California (I-ECC)
Ceres	** Career Education Responsive to Every Student (CERES) Ceres Unified School District
Concord	# Career Education Project Mt. Diablo Unified School District
Covinia	* Covina-Valley Career Education Project Covina-Valley Unified School District
Fremont	* Career Education Project Fremont Unified School District
Fullerton	* Career Information Technician Fullerton Joint Union High School District
Huntington Beach	* Career Education Project Huntington Beach Union High School District
La Mesa	* Career Education Project Grossmont Union High School District
La Mesa	* Project CARE La Mesa-Spring Valley Elementary School District

Project Location	Project Title
Los Angeles	* Comprehensive Career Education Model Los Angeles Unified School District
Monterey	# Career Education Project Monterey Peninsula Unified School District
Oakland	# Experience-Based Career Education Program Oakland City Unified School District
Ontario	* Career Education Project Chaffey Joint Union High School
Ontario	** Project MATCH Ontario-Montclair School District
Orange	* Career Education Project Orange Unified School District
Richmond	# Career Education Project Richmond Unified School District
Sacramento	* Career Education Project Sacramento Unified School District
San Diego	* Project CHOICE San Diego Unified School District
San Francisco	* Career Education Project Far West Regional Laboratory for Educational Research and Development
San Jose	* Development of Career Awareness Materials for Spanish-Speaking Migrant Children, Grades K-6 Educational Factors, Inc.
Santa Barbara	* Career Education Project Santa Barbara High School District
South San Francisco	* Junior High Career Education Program South San Francisco Unified School District
COLORADO	
Alamosa	# San Luis Valley Career Education Program San Luis Valley Board of Cooperatives
Boulder	* The Production and Evaluation of Model Science Materials in Career Education for the Educable Mentally Handicapped Secondary Student (Ages 16-19) Biological Sciences Curriculum Study
Colorado Springs	* Development of Life Planning Goals Through Career Education Harrison School District #2

Project Location	Project Title
Denver	* Exploratory Program in Careers Denver Public Schools
Englewood	* Colorado State Resource Center
Greeley	* Career Education for the Mentally Handicapped
Greeley	* Career Oriented Education Project University of Northern Colorado
Lakewood	* A Qualitative Incremental Improvement to Reduce Sex Role Stereotyping on the Career Choices of Junior High Students Jefferson County Public Schools
Longmont	* Project Interface St. Vrain Valley School District RE1J
Otis	* Career Education Project Lone Star District 101
Westminster	* Community Resource Center
CONNECTICUT	
Bridgeport	* Career Education, K-12 Bridgeport Public Schools
Bristol	# Career Education Project Bristol Public Schools
Madison	* Project Touchstone Regional Education Center
Madison	* Project LEARN Regional Education Center
New Haven	# Cable-RAVE Project Regional Career Education Resource Center
New Haven	# East Shoreline Region Project Regional Career Education Resource Center
New Haven	* Troup Middle School Project Troup Middle School
Norwalk	* Career Education, K-12 Norwalk Public Schools
Portland	* Experience-Based Career Education Project Portland Public Schools

Project Location	Project Title
Stamford	# Career Education Project Fairfield County School District
DELAWARE	
Newark	* ERA Project Newark School District
Newark	* Project REAL and Career Education K-8 Newark School District
Wilmington	# Students Volunteer Occupational Experiences Through Career Guidance and Placement Brandywine High School
FLORIDA	
Arcadia	# DeSoto County District Plan for Career Education Development Program
Dade City	# CHOICE Program Pasco County Schools
Fort Lauderdale	** Project EPIC
Miami	* Career Education Project Dade County Public Schools
Monticello	* I Believe in Kids Jefferson County School Board
Orlando	* Career Education Project Orange County School District
GEORGIA	
Atlanta	* Career Education Project
Columbus	* Fine Arts Career Education Cluster (FACE) Muscogee County Schools
Conyers	* Rockdale County Learning in the Community Profile Rockdale County High School
Cordele	* Crisp County Career Education Project Crisp County Board of Education
Marietta	* Project Access (Handicapped) Cobb County School District
Marietta	# Three-Year Developmental Career Education Program
Newnan	# Learning in the Community Coweta County Schools

Project Location	Project Title
Thompson	* Career Education Project Central Savannah River Area Cooperative Education Agency
Woodstock	* Vocational Program Etowah High School
HAWAII	
Honolulu	# Career Information Center University of Hawaii
Honolulu	# Hawaii Career Development Continuum, K-14 State Department of Education
Honolulu	* National Alliance of Businessmen Career Guidance Institutes Hawaiian Educational Council, Inc.
Kaneohe	* Career Education Teacher Cadre Training Program Kaneohe Elementary School
IDAHO	
Blackfoot	* Bingham County Developmental Program Snake River School District #52
Boise	# Career Education Project Boise Independent School District
Boise	* Career Education Project Pocatello Junior High School
Nampa	* World of Work: Career Awareness Nampa School District #131
ILLINOIS	
Champaign	# Career Education Project University of Illinois
Chicago Heights	# CASE Cooperative Career Central Jefferson School
Chicago Heights	* Co-op Program Bloom Township High School
Crestwood	* Sauk Area Career Center
East Peoria	* Career Information Day Tri-County Industry-Education-Labor Council
Flossmoor	* Co-op Program Homewood-Flossmoor High School

Project Location	Project Title
Rockford	# The Comprehensive Career Education System Rockford Public Schools
Springfield	# Comprehensive Illinois Occupational Education Demonstration Center Project Illinois Office of Education
Springfield	# Illinois Career Education Area Service Centers (Urban and Rural): A Vehicle for Demonstration Illinois Office of Education
INDIANA	
Bloomington	* Teaching Interpersonal and Self Management Skills to Mildly Handicapped Adolescents as Part of a Career Education Curriculum Indiana University
Elkhart	* Elkhart Career Education Program (ELCEP) Elkhart Community Schools
Evansville	* Careers Resource Project Utilizing a Mobile Unit Design
Indianapolis	# Career Development and Meaningful Exploratory Experiences to Middle School Students in Southern Indiana Utilizing Mobile Design Education Units State Board for Vocational-Technical Education
Indianapolis	# Career Education Project Indiana State Department of Public Instruction
Indianapolis	# Career Resource Project Indiana State Board of Vocational-Technical Education
Lafayette	# Career Education Project Hershey Elementary School
New Albany	* New Albany Floyd County Comprehensive Guidance and Placement Program New Albany Floyd County School Corporation
IOWA	
Clear Lake	# The Wilson Study AEA II
Council Bluffs	# Career Education Project AEA XIII
Des Moines	* Career Information System of Iowa Iowa Department of Public Instruction
Des Moines	# Comprehensive Career Curriculum Des Moines Independent School District

Project Location	Project Title
KANSAS	
Newton	* Explore Program Central Kansas Area Vocational-Technical School
Newton	* Project STEP Newton Public Schools
Pittsburgh	* Career Education Project Unified School District #250
KENTUCKY	
Bowling Green	* Career Education: Implementation, Operation, and Administration of a K-12 Program Bowling Green Board of Education
Bowling Green	* Research Project in Vocational Education Center for Career and Vocational Teacher Education
Frankfort	# Developmental Career Guidance Division of Guidance and Social Work
Hazard	* Career Education in Region 12 (Hazard)
Lexington	* Community Phase and Experience-Based Career Education Fayette County Board of Education
Lexington	# Development of Research Utilization Modules to Improve Educational Services Through Camping for the Physically Handicapped University of Kentucky
Lexington	* The Effects of a Program of Career Education in Kentucky's Education Region XII: Phase II University of Kentucky
Louisville	** Project EPIC Jefferson County Board of Education
Morehead	* Rowan County Experimental Field Consortium Rowan County Board of Education
Shepherdsville	# Career Exploration Program Hebron Junior High School
LOUISIANA	
Baton Rouge	# Career Education Project Sherwood Junior High School
Covington	* Career Education Project St. Tammany Parish School Board

Project Location	Project Title
Luling	* Career Education Project St. Charles Parish School Board
Natchitoches	# An Exemplary Program for Career Education Natchitoches Parish School Board
New Orleans	# Career Education Project Orleans Parish School Board
MAINE	
Bangor	* Comprehensive Career Eduation Project, K-12 Bangor School Department
Biddeford	* Career Opportunities, Placement and Evaluation (COPE) Biddeford High School
Cumberland Center	# Project Guidance in Vocations and Education (GIVE) MSAD # 51
Farmington	# Career Education Resource Center Mt. Blue High School
Lewiston	* Job Development, Placement, and Follow-up Lewiston School Department
North Haven	* Career Education for Rural Isolated Schools North Haven Island Community School
Orland	* Career Counseling for Disadvantaged Youth H.O.M.E., Inc.
Orono	* Career Education Project University of Maine
South Portland	* Revitalize the Vocational and Academic Multifarious Program through Career Education (Project REVAMP) South Portland Public Schools
MARYLAND	
Annapolis	* Anne Arundel Curriculum Infusion Project Anne Arundel County Board of Education
Baltimore	* Maryland Career Guidance Institutes Maryland State Education Department
Baltimore	# Project ACE Overlea Senior High School
Cumberland	* Appalachian Maryland Experience-Based Career Education Project Regional Education Service Agency
Owings Mills	# Career Education TV Series Maryland State Department of Education

Project Location	Project Title
Potomac	* Career Education Program Montgomery County Public Schools
Rockville	* Micro-City Montgomery County Public Schools
Rockville	* Montgomery County Executive Internships for Gifted and Talented Students Montgomery County Public Schools
Towson	# Infusion at the Elementary Level: Martin Boulevard Elementary Baltimore County Board of Education
Upper Marlboro	** Prince George's County Career Education Program Prince George's County Public Schools
Westminster	* Computer Project Discover Western Maryland College
Westminster	* Project Career Awareness NOW Carroll County Public Schools
MASSACHUSETTS	
Boston	* Survey of Work Experience Programs Northeastern University
Boston	# Worcester, Massachusetts Career Education Consortium Boston University
Cambridge	# Increasing Secondary School Guidance Services to Physically Handicapped Students Technical Education Research Centers, Inc.
Harwich	* Harwich Comprehensive Career Education Project Harwich Junior High School
Hanover	* A Career Accessibility Model for Special Needs Individuals Institute for Career Education
Hanover	* Project OCAP: Occupational Competence Access Project Institute for Career Research
Worcester	* Project Competency Worcester Public Schools
MICHIGAN	
Alma	* Career Exploration Activities Mid-Michigan Community Action Council
Coloma	** Career Development Centered Curriculum Coloma Community School District

Project Location	Project Title
Hastlett	* Career Education Project (Elementary) Haslett Public Schools
Lawrence	* Needs and Objectives for Migrant Advancement and Development (Project NOMAD) Van Burean Intermediate School District
Livonia	# ACTION (Service Learning Through Volunteers)
Livonia	* Career Internship Program
Livonia	# Home Construction
Livonia	* The Livonia Youth Employment Services
Marshall	* Career Education Project Calhoun County School District
Pontiac	* Human and Computer Assisted Career Achievement Skills Training Program Pontiac Public Schools
Pontiac	* Pontiac Adult-Student Learning System School District of the City of Pontiac
Sault Ste. Marie	# Project CERT Eastern Upper Peninsula Intermediate School District
MINNESOTA	
Cold Spring	* Career Education Project Cold Spring Public Schools
Minneapolis	* St. Paul Career Education Project Minneapolis Public Schools
Minneapolis	# Community-Based Career Education Element
No. St. Paul	* No. St. Paul Career Education Project No. St. Paul School District #622
Roseville	* Career Education Project Roseville School District
St. Paul	# Career Education Kindergarten through 12 Project State Department of Education
St. Paul	# K-6 Career Education Curriculum Career Education Resource Center
MISSISSIPPI	
Greenwood	* Infusion of Career Education Concepts

Project Location	Project Title
Lamar County	* District-Wide Developmental Guidance and Counseling Program Lamar County School District
Laurel	# Career Education Project Jones County School District
Newton County	* Career Education Staff Development Program for Teachers and Administrators in Newton County
MISSOURI	
Chesterfield	* Parkway Experienced-Based Career Education Parkway School District
Florissant	# Career Education: Total Education
Independence	* Career Education Project Fort Osage School District
Kansas City	* Careers: A District-Wide School Based Approach School District of Kansas City
Sedalia	* State Fair Community College Career Education Project State Fair Community College
MONTANA	
Great Falls	* An Exemplary Career Education Program in the Great Falls, Public Schools Cascade County School District
NEBRASKA	
Lexington	* Career Education Project Lexington High School
Lincoln	# Lincoln Career Education Project Lincoln Public Schools
Milford	# Career Education Project Milford Public Schools
Omaha	# Career Education Project Omaha Public Schools
NEVADA	
Carson City	* An Objective-Based Career Guidance Program Nevada Department of Education

Project Location	Project Title
NEW HAMPSHIRE	
Allenstown	* Career Exploration, Grades 7 and 8 Allenstown Upper Elementary School
Concord	* New Hampshire Model for Career Guidance State Department of Education
Somersworth	* Project Bridges Somersworth High School
NEW JERSEY	
Asbury Park	* Career Education Project Asbury Park Board of Education
Glassboro	# Incremental Improvements in Career Education Programs K-12 of the Vineland Public Schools Glassboro State College
Hackettstown	* Project WORK-ED: World of Related Knowledge and Educational Development Hackettstown High School
Jersey City	# Career Education, K-12 Jersey City Board of Education
Milville	# Career Education Project Millville School System, K-12
Newark	# Career Education Program Newark Board of Education
New Brunswick	# New Brunswick Career Education Model New Brunswick School District
Parsippany	# Fusion of Applied and Intellectual Skills (Elementary) Parsippany Troy-Hills School District
Passaic	* Career Education Project Passaic Public Schools
Perth Amboy	* Governor's Career Development Project Perth Amboy High School
Pleasantville	# Summer Work/Study Pleasantville School District
Princeton	# Project HEAR
Somerset	# Career Education K-12 Franklin Township School District
Trenton	# Technology for Children (K-6) Division of Vocational Education

Project Location	Project Title
Wayne	* Design for Career Education
NEW MEXICO	
Las Cruces	# Project EXCEL Las Cruces Public Schools
NEW YORK	
Albany	* New York State Consortium for Career Education New York State Education Department
Amherst	# Career Education Project State University of New York
Belmont	* Career Education for Southern Tier West
Brooklyn	# Career Education Project Center for Career and Occupational Education
Brooklyn	* Career Education Project Board of Education for the City of New York
Bronx	# District Eleven Career Education Model: DECEM Community School District #11
Buffalo	* Project Open Door to the World of Work Buffalo Public School District
Canton	* Career Guidance: An Occupational Imperative for St. Lawrence Valley Northwest Technical Center
Castleton-on-Hudson	# Career Education for Handicapped Students Renssalaer-Columbia Board of Cooperative Educational Services
Cheektowaga	# Career Education Project Erie County School District
Corning	# Career Education Project Corning School District
East Aurora	* Career Motivation Project East Aurora Public Schools
Elma	* Guidance Program for Grades 8 through 12 Iroquois Central School
Hamburg	# Guidance Program for Grades 8 through 12 Hamburg Central School
Mamaroneck	* Classrooms Beyond School Walls Mamaroneck Union Free School

Project Location	Project Title
Manhattan	# Board of Cooperative Education Services Career Education Program Manhattan School District #1 Administration
New York	# Career Education Project: Open Doors Open Doors
New York	# Career Skills Assessment College Entrance Examination Board
New York	* From Dreams to Reality Girl Scouts of the United States of America
New York	* Occupational Counseling for Physically Handicapped Students: A Demonstration and Training Project City University of New York
Niagara Falls	* Comprehensive School-Industry Cooperative Career Education Program School District of the City of Niagara Falls
Rochester	* Articulated Career Guidance Project Rochester City School District
Rochester	* A Cooperative Occupational Education Model for Secondary Level Deaf Students University of Rochester
Syracuse	* Life Centered Curriculum Project Syracuse City Board of Education
Syracuse	# New York State Consortium for Career Education Syracuse Public Schools
West Nyack	* Career Internship Project Rockland County Board of Cooperative Educational Services
NORTH CAROLINA	
Charlotte	* West Charlotte High School Internship Program West Charlotte High School
Monroe	# Career Education Project Union County Board of Education
Raleigh	* Career Based Curriculum Project (CBC) Department of Public Instruction
NORTH DAKOTA	
Bismarck	* A Developmental Program, Pre-School to Adult in Career Education for North Dakota State Board for Vocational Education

roject Project Location		Project Title
OHIO		
Akron	**	Career Development Program Akron City Schools
Akron	#	Career Eduation Project (Elementary) Miller School
Bainbridge	*	Career Development Program Paint Valley Local Schools
Cincinnati	*	Career Development Program Cincinnati City Schools
Cleveland	*	Career Education Project Cleveland City Schools
Cleveland	*	Career Education Project Cleveland Heights-University Heights City Schools
Columbus	#	Career Education Project Upper Arlington School System
Columbus	#	Curriculum Guides, Vocational Education Part I: Career Education on Occupational Clusters Center for Vocational Education
Columbus	#	Evaluation of State Plans Center for Vocational Education
Columbus	#	Relating the Capabilities of the Handicapped to the Human Attirbute Requirements of Jobs Ohio State University
Lorain	*	Career Education Project Emerson School
Medina	*	Career Education Project Medina City Schools
Minford	#	Career Education Project Minford Local Schools
New Concord	*	Career Education Project East Muskingum Middle School
Orville	#	Career Education Project Orville City Schools
Springfield	#	Career Education Project Springfield City Schools
Springfield	#	Career Education Project Mad River-Green Local Schools

Project Location	Project Title
Springfield	# Career Education Project Cincinnati Public Schools
Toledo	* Career Development Program Toledo Public Schools
Willowick	* Career Education Project Willoughby-Eastlake School District
Youngstown	* Career Education Project Boardman Local Schools
OKLAHOMA	
Burns Flat	* Building Bridges Between Education and the World of Work through Career Education Western Oklahoma Area Vocational-Technical School
Norman	* Experienced-Based Career Education Moore-Norman Area Vocational-Technical School
Oklahoma City	* Career Education through a Library-Based Career Information System Putnam City High School
Oklahoma City	* Bridging the Gap Between Academic-Vocational Government-Business and Communities for the Implementation of a Career Development Program Vocation Oklahoma City Public Schools
Stillwater	* Academic and World of Work Gap-Bridging Through Career Education Oklahoma State Department of Vocational and Technical Education
Sand Springs	* Research and Development Project in Career Education Sand Springs Schools District #2
Wilburton	* Mobile Career Development Program
OREGON	
Dufur	# Using Office Simulation to Provide Students with Entry-Level Clerical Skills Dufur High School
Eugene	* Business Administration Internship Program Eugene School District #4J
Eugene	# Measurement of Community Adjustment of Retarded Young Adults University of Oregon

Project Location	Project Title
Eugene	# Evaluation of Retarded Student Achievement in Career Education Programs University of Oregon
Hillsboro	* Career Education Project Hillsboro Unified High School District #3J
Pleasant Hill	* Increasing the Vocational Awareness of Elementary School Children Pleasant Hill Elementary School
North Bend	* Publicizing Careers Information Through Competitive Skill Events Coos County Intermediate Education District
Portland	# Career Survey Project City of Portland Human Resources Bureau
Portland	# Catalyst for Career Choice Madison High School
Portland	# Emergency Home Repair City of Portland Human Resources Bureau
Portland	* Experience-Based Career Education Project Northwest Regional Educational Laboratory
Portland	* Facilitating Articulation of Career Education Through a Local Attendance Area Planning System Portland School District 1J
Portland	# Implementing Career Education in Grades K-6 Portland School District 1J
Portland	# Improving Career Education Programming Through a School-Based Applied Research Model John Adams High School
Portland	# Integrating Basic Skills and Career Education through Interdisciplinary and Coordinated Multidisciplinary Curriculum Units Vocational Village
Portland	# Integrating Work Habits and Attitudes with Basic Skills Offerings Grant High School
Portland	* Portland Career Education: Grades K through Ten Portland School District 1J
Portland	* A Process for Integrating Career and Consumer Education Course Goals with Basic Reading Programs Portland Public Schools

Project Location	Project Title
Salem	* Infusing Career Education into a Second Language Program State Department of Education
Springfield	* Comprehensive Career Education Processes in Springfield Public Schools Springfield School District 19
Tigard	# Establishing Career Demonstration Centers by Means of Extensive Staff Development Activities Tigard School District
Turner	# Exploring Careers Through an Occupational Cruise Cascade Union High School District #5
Vale	* Facilitating Career Education in Isolated Communities Through a Six-County Consortium Malheur County Intermediate Education District
PENNSYLVANIA	
Bloomsburg	* Career Awareness/Job Orientation Via Taped Television Programs
Edensburg	# Language Experience Based Awareness + Hands On Exploration + Competency Based Preparation = A School Based Total Career Education Model Admiral Peary Area Vocational-Technical School
Edinboro	* A Project to Demonstrate Incremental Improvements in a K-12 Career Education Program Northwest Tri-County Intermediate Unit 5
Erie	* Vocational Cooperative Education Program
Harrisburg	* Experience-Based Career Education Harrisburg School District
Harrisburg	# Research and Development Project in Career Education Pennsylvania Department of Education
Lewisburg	* Getting Started Central Susquehanna Intermediate Unit 16
Philadelphia	* Career Education Project Philadelphia School District
Philadelphia	* Urban Career Education Center (UCEC)
McKeesport	# Career Education Project McKeesport Area School District
Philadelphia	* Comprehensive Career Education Model K-14 School District of Philadelphia
Philadelphia	* Experience-Based Career Education Project Research for Better Schools

Project Location	Project Title
Philadelphia	* High School Academies Philadelphia Electric Co.
Philadelphia	* Room to Grow School District of Philadelphia
Pittsburgh	* BHQ Career Education Project Allegheny Intermediate Unit
Pittsburgh	# Career Education Project School District of Philadelphia
SOUTH CAROLINA	
Columbia	* Career Education Demonstration Project Richland School District Two
Columbia	* A Guidance Program for Grades 8-12 South Carolina State Department of Education
Columbia	* Staff Development Program in Career Development State Department of Mental Health
Duncan	# Model Comprehensive Project in Career Education Spartanburg District Five Schools
Greeneville	* Experience-Based Career Education Project J.L. Mann High School
Union	# Career Education Project Union High School
SOUTH DAKOTA	
Huron	# Career Competency Program McKinley School
Pierre	* Statewide Implementation of a K-14 Project of Career Education, Occupational Counseling, and Bridging the Gap Between School and Work Division of Vocational Education
Watertown	# Path Finder: Project in Experience Based Career Education Lincoln Annex
Watertown	# Watertown Public Schools Career Education Program Watertown Public Schools
TENNESSEE	
Covington	# Practical Arts in Covington City Schools Covington City Schools
Greeneville	* School Program Advancing Career Education Greeneville City Schools

Project Location	Project Title
Knoxville	# School Program in Career Education Knox County Schools
Memphis	# Career Education Project Shelby County School District
Trenton	# Career Guidance Gibson County Schools
TEXAS	
Andrews	* Career Education Project Andrews Independent School District
Austin	* Basic Learner Outcomes for Career Education Texas Education Agency
Austin	# Career Education Project: North Central Texas, Grade 5 State Superintendent's Office
Conroe	* Career Education Project Conroe Independent School District
Corpus Christi	* Career Education Project Corpus Christi Independent School District
Dallas	# Career Education Project Dallas Public Schools
Denison	# Career Education Project Grayson County College
Houston	# Career Education Project Houston Public Schools
Iowa Park	# Career Education Project Iowa Park Independent School District
Kileen	* Texas Telecoputer Grid/Bilingual Career Education Demonstration Project American Technological University
Lubbock	# Career Education Project Education Service Center
Lufkin	# Career Education Project Lufkin Independent School District
McAllen	# Career Education Project McAllen Independent School District
Nacogdoches	* SFA Project in Career Education: Project Gemini Stephen F. Austin State University
Orange	* Career Education Project West Orange-Cover Consolidated Independent School District

Project Location	Project Title
Pettus	* Career Education Project Pettus Independent School District
Richardson	* Phasing in Career Education Systematically Region IX Education Service Center
Rockwall	# Career Education Project Rockwall Independent School District
San Angelo	* Career Education Project San Angelo Independent School District
San Antonio	* Healey-Murphy Learning Center
San Antonio	# Mental Health Center Southeast Unit
Weatherford	* Career Education Project Weatherford Independent School District
UTAH	
Farmington	* A Continuum Model for Career Development Education, K-14 Davis County Schools
Ogden	* Career Education Project Weber County School District
Ogden	* People Change Project Weber County School District
Salt Lake City	* Experience Based Career Education Highland High School
Salt Lake City	* Incremental Improvement of Career Education in Utah State Board of Education
VERMONT	
Bennington	# Bennington Office of Career Education Project Bennington Public Schools
Burlington	* Student Plans and Career Clusters (SPaCC Project) Burlington School District
Essex Junction	# Career Education Project Chittenden Central School District #13
Gilman	* Thaler Project Gilman Middle School
Montpelier	* Career Education Project North Hero and Alburgh Elementary Schools
Montpelier	* Career Education Project Vermont State Department of Education

Project Location	Project Title
VIRGINIA	
Arlington	* Development of Pilot Testing of a Career Education Program Model in the Recreation, Hospitality, and Tourism Occupations Cluster National Recreation and Park Association
Bedford	* Career Education NOW! Model for Career Education Curriculum K-14 for a Rural-Urban School District Bedford County Public Schools
Hillsville	* Career Development Project (K-12) Carroll County Public Schools
Roanoke	# Career Education Project
Staunton	# School and Community Cooperative Guidance Program (Elementary) Augusta County Public Schools
WASHINGTON	
Bremerton	* Project FUTURE Bremerton School District No. 100
Camas	* Three-Star Project Camas School District No. 117
Cashmere	* Cashmere Career Education Project Cashmere School District No. 222
Olympia	* Implementation of the State Plan for Career Education Office of the Superintendent of Public Instruction
Seattle	* Career Alternatives Highline School District No. 401
Seattle	# Career Education for Gifted and Talented Students Highline School District No. 401
Seattle	* Career Education Project Seattle Public Schools
Seattle	# Community-Based Career Exploration Highline School District
Seattle	** Project Equality Highline Public Schools, No. 4C1
WASHINGTON, DC	
Washington, DC	* Career Counseling and Placement Component
Washington, DC	* Career Education in the Inner City

Project Location	Project Title
WEST VIRGINIA	
Beckley	# Research and Development Project in Career Education
Charleston	* Appalachia Educational Laboratory
Charleston	* Experience-Based Career Education
Fairmont	* Evaluating the Introduction of Career Education Concepts into the Academic Curricula Fairmont State College
Fairmont	* Summer Institute on Educational Professional Development for Developing Interdisciplinary, Competency-Based Learning Modules in Career Exploration Fairmont State College
Hamlin	# Career Awareness Lincoln County School District
Logan	# Career Education Project Marshall University
Martinsburg	* Career Education: A Structured Intervention Curriculum for Appalachian Youth Region VIII Regional Educational Service Agency
Martinsburg	# Prevocational Exploration Program
Parkersburg	* Design for Establishment of a Career Oriented Educational Program Through a Regional Educational Service Agency Region V Regional Educational Service Agency
WISCONSIN	
Eau Clair	* Career Education Project Eau Clair Joint District #5
Eau Claire	# Career Education Project District Technical Institute
Madison	* Choices and Careers: Free to Choose, A Career Development Program for Tribal Girls
Madison	* Wisconsin Career Education Consortium Wisconsin Department of Public Instruction
Madison	* Wisconsin Job Placement Project Wisconsin Department of Public Instruction
Menomie	* Career Education Project University of Wisconsin
Oshkosh	# Career Education Project Oshkosh West High School

Project Location	Project Title
Racine	# Career Education Project Unified School District No. 1
Wausau	# Career Education for Perosns in Rural Areas Marathon County School District
WYOMING	
Riverton	# Career Education Project Fremont County School District #25
PUERTO RICO	
Hato Rey	* Exemplary Career Education Comprehensive Model in the Academic, Vocational, and Technical Program in Puerto Rico Department of Education
Hato Rey	* Carolina School District Sequential Approach to Career Orientation and Preparation Department of Education

APPENDIX B

Screening Criteria Documents

Activity Analysis Form I

(Level I Criteria)

Program ID# _____

Brief Title: _____ Rater _____

State: _____ Date _____

Place a check in the appropriate column opposite each of the following Level I criteria. If you cannot decide which column to check, please explain why in the "Comment" section below.

	Yes	No
1. The activity has not been commercially published.[1]	___	___
2. The activity is still operating.[1,2]	___	___
3. The activity has been formally evaluated since June 1974.		
4. An evaluation report is written and available.	___	___
5. Can the activity properly be classified as career education? *(Check "No" for any program which is designed specifically to impart only working skills.)*	___	___
6. The evaluation report concludes that there is evidence of effectiveness. *(Check "No" for only those programs whose evaluation report concludes that there was no measurable effect.)*	___	___
7. The evaluation design includes a comparison group/standard of some kind. *(A pre- and post-test only design is not enough.)*	___	___

Reject any program receiving a check in the "No" columns opposite any of the seven criteria. If it has not been possible to determine if one or more criteria have been met, then a second reviewer's opinion should be obtained. (Check the appropriate line below.)

Decision:
- Program/activity Rejected at Level I _____
- Program/activity Accepted at Level I _____
- More information needed *(specify)* _____

If the activity is rejected at Level I for now but shows future promise, check here. _____

Comments: _____

_____

_____

_____

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1. Check by telephone during Level II analysis if unsure.
2. Check especially if the report was not submitted by the nominee, and if the report does not cover the 1976-77 school year.

Instructions For Using Level II Criteria To Screen Career Education Documents

This is a set of instructions for applying Level II criteria to career education documents that have passed the initial screening process. Each item on the Level II screening sheet will be discussed in turn and, when necessary, examples will be presented to illustrate important points. Note that some items on the screening sheet are included for information gathering purposes only; other items, marked by asterisks, represent key criteria to be used in accepting or rejecting an activity for further consideration at the next level. Attached to each coding sheet is a form on which the rater can indicate whether the activity has been accepted or rejected, make comments explaining his/her decision, and specify what further information, if any, is needed to make a decision. Please do not mark or make comments of any kind on the documents.

I. Objectives

A. This item is included for information purposes only. The rater is asked to classify the objectives as explicitly stated, clearly implied, or neither. When explicitly stated, the objectives may appear either in a separate section labeled "objectives" or in the introductory part of the document. When not explicitly stated, the objectives can be inferred from the procedures or instructional methods, from the measures used, or from the evaluation questions. The "neither" category of this item applies to those rare cases where the objectives are so muddled or diffuse that they cannot be inferred from the procedures, the measures, or the evaluation questions.

B. The purpose of this item is to screen out those activities whose objectives are so narrow or trivial that they have no educational significance for other project sites. The activity should receive a "yes" on this item if <u>at least one</u> objective has educational significance for other sites. Do not use this item to automatically reject activities geared to such special populations as the gifted, the handicapped, the disadvantaged, or minorities. Although not relevant to "normal" populations, these programs still may have significance for students, schools, and communities other than the project site.

II. Treatment

A. Check "yes" if an adequate description of the treatment is contained in the documents received. Check "no" if the description of treatment in the documents is inadequate <u>and</u> there is no doubt that all information relevant to the project has been supplied (this will

probably be a rare case). Check "d.k." if the report does not contain adequate information on the treatment and if you have no reason to believe that all available information has been supplied.

B. Check either stated or implied depending on the focus of most of the procedures. If "d.k." has been checked above, it must also be checked here.

III. Evaluation

A. The purpose of this item is to screen out activities in which the evaluation focused on trivial objectives. This can be done by asking the following question: Did the evaluation focus on one of the objectives reflecting nationally accepted needs, as identified in I.B.?

B1. What is needed here is a relatively complete description of how the evaluation group was selected from the activity group. (The evaluation group is comprised of those students who received the treatment and whose progress was assessed or evaluated.) It is not enough for the report to simply state that the evaluation group was selected randomly; it must also provide a detailed description of exactly how it was randomly selected. The criterion here should be whether the report describes the selection process in enough detail for someone else to replicate the evaluation.

B2. To generalize from the evaluation group to the treatment group, the evaluation group must be selected randomly or in such a way that selection was random in effect. In other words, if the evaluation group was not selected randomly, the report should provide evidence that it was similar to the treatment group along such educationally relevant dimensions as age, sex, pretest scores, S.E.S., grade level, ethnic composition, etc.

B3. The rationale for this criterion is fairly obvious: with samples under 30 (usually representing only one classroom) we cannot rule out the characteristics of the teacher or the students as accounting for the observed effect.

C1. This question is included for informational purposes only. While in most cases only one of the alternatives should be checked, it is quite possible for an evaluation to use more than one kind of standard or comparison group. Following are brief definitions of the terms used.

a. equivalent control groups: Equivalent control and treatment groups are created by randomization, by matching, or by other methods.

b. nonequivalent control group: In this case, the control (comparison) group is not equivalent to the treatment group along educationally relevant dimensions.

c. national norm group: Here the comparison standard consists of pretest and posttest norms on nationally standardized tests.

d. local norm group: In this case, the comparison standard consists of norms for locally developed tests.

e. trend data: Here the standard of comparison is the rate for school or district over a period of years.

f. experimental expectancy: In this situation, gains of the treatment group are compared with expected gains as reported in other studies found in the literature.

g. time-series samples: Time-series designs involve a periodic measurement process on the same group and the introduction of a treatment into this series of measurement. Results of the treatment are indicated by a change in the measurements recorded in the time series.

h. multiple treatment groups: Here several treatments are applied with perhaps also a control (no treatment) group.

i. other (specify)

C2. In conventional experimental designs, students are assigned to treatment or comparison (control) groups on a random basis or in such a way that nonrandom assignment is random in effect. The two groups are, therefore, expected to be reasonably similar along all educationally relevant dimensions. Accordingly, the rater should check "yes" to this item when an experimental design is used along with methods assuring a reasonable degree of similarity between treatment and control groups. If no evidence of similarity is provided check "no" or "d.k." Please note that certain quasi-experimental designs do not require equivalent treatment and control groups. With regard to norm-referenced designs, inappropriate selection of a comparison standard may occur when national norms are applied to special populations such as the gifted, the handicapped, the disadvantaged, etc.

C3. Details of differences between activity and non-activity groups should be provided that is comparable to that provided in II.A.

D1. The purpose of this item is to screen out evaluations using only opinion data or head counts.

D2. Measures should be specified by including the actual items or by describing them in detail. Measures such as standardized tests, of course, do not have to be described in detail.

D3. This item essentially asks the following question: Is it reasonable to expect the measures to reflect any changes due to the treatment?

D4. This item is self-explanatory.

E. Schedule

1. This item is for informational purposes only. Check more than category one, if appropriate. Please note that a pretest is not essential for all experimental designs.

2. This item is self-explanatory as stated on the screening form.

3. This question only applies to designs that include both a pretest and a posttest. The adequacy of the time between the pretest and the posttest can only be assessed relative to the goals of the activity.

F. Statistics

1. Each rater should use his/her judgment in answering this question. However, it is advisable to reject activities on the basis of this question only when there are blatant errors in the choice of statistical procedures.

2. Self-explanatory.

IV. Federal funding: Code this item for informational purposes only.

Each career education activity will be screened by two raters. When the two raters disagree and the disagreement is not due to simple oversight on the part of one rater, a third rater should be called in to help resolve the issue. Reasons for rejecting the activity should be specified in the "comments" section of the coding sheet. If further information is needed, this should also be specified. When further information is needed, classify the activity as "low probability" or "high probability" depending on your estimation of its chances of passing Level II criteria when all the information is in.

Criteria for Level II Screening

I. Objectives

A. Are objectives explicitly stated (1), clearly implied (2), or neither (3)?

* B. Do at least some of the objectives reflect generally accepted needs? (Do objectives have educational significance for sites other than the project site? Would objectives be relevant and meaningful to students, schools, and communities other than project site?)

II. Treatment

A. Are adequate details of the instructional procedures available or obtainable? (Does a detailed description of the program/activity treatment exist in the available documents, especially with regard to diagnostic and instructional procedures? Or, if such a description is not contained in the available documents, can it be obtained elsewhere?)

B. Are procedures directed at the stated objectives (1) or the implied objectives (2)?

III. Evaluation

A. Focus: Did the evaluation focus on at least one of the major objectives?

B. Selection of evaluation group from activity group. If the total treatment group was not included in the evaluation, then was the evaluation group selected randomly or in such a way that selection was random in effect?

1. Are procedures for selecting the group adequately specified?

* 2. Do selection procedures permit inferences concerning the treatments, i.e., was the evaluation group selected randomly or in such a way that selection was random in effect?

3. Was the evaluation sample "n" at least thirty (30)? However, what the sample represents is more important to consider than simply its size. For example, a sample of 30 may represent only one class, in which case the results could be attributed to the qualities of the teacher rather than to the treatment. On the other hand, a sample of 30 may represent students randomly selected from several classes. In this instance, one could have more confidence that the results were attributable to the treatment rather than to the characteristics of the teacher.

C. Selection of control group or standard for comparison.

1. Which of the following was the standard?

a. equivalent control group
b. nonequivalent control group
c. national norm group
d. local norm group
e. trend data (e.g., rate for school over a period of years)

f. experimental expectancy
g. time-series samples
h. multiple treatment groups
i. other (specify)

* 2. Are procedures for selecting the control group/standard appropriate?

* 3. If a comparison is being made between program and non-program persons, are important differences between these groups in kinds and amounts of instructional methods, activities, and services specified?

D. Measures

* 1. Are measures other than opinion data used?

2. Are measures specified?

* 3. Are measures appropriate to evaluate the effect of the treatment?

4. Are copies of the locally developed measures available?

E. Schedule

1. Which of the following tests were administered to the program and comparison or baseline groups: pre- (1), during (2), post (3), follow-up (4)?

* 2. Are time relationships between pre- and posttests and treatment appropriate? (Does the pretest occur reasonably close to the beginning of treatment and the posttest reasonably close after the treatment?)

3. If the design includes pre- and posttests, is the length of time between pre- and posttests adequate to expect results to occur?

F. Statistics

* 1. Are the statistical procedures and analyses appropriate for the evaluation design?

2. Are some of the results significant at the .05 level?

IV. Funding: Were federal funds used at any time in the life of the project?

Program ID # _____

Short Title _____

Rater _____

Date _____

Accept _____
Reject _____
More info. needed ____

Coding Sheet (Level II Criteria)

I. Objectives

A. 1 2 3 dk ☐ ☐ ☐ ☐

* B. yes no dk ☐ ☐ ☐

C. _____

_____

II. Treatment

A. yes no dk ☐ ☐ ☐

B. 1 2 dk ☐ ☐ ☐

III. Evaluation

A. yes no dk ☐ ☐ ☐

B.

1. yes ☐ dk ☐
* 2. no ☐ ☐ ☐
3. ☐ ☐ ☐

C.

1.

a. ☐
b. ☐
c. ☐
d. ☐
e. ☐
f. ☐
g. ☐
h. ☐
i. ☐ _____

* 2. yes no dk ☐ ☐ ☐

* 3. yes no dk ☐ ☐ ☐

D.

* 1. yes no dk ☐ ☐ ☐
2. ☐ ☐
* 3. ☐ ☐ ☐
4. ☐ ☐ ☐

E.

1. 1 2 3 4 dk ☐ ☐ ☐ ☐ ☐

* 2. yes no dk na ☐ ☐ ☐ ☐

3. yes no dk na ☐ ☐ ☐ ☐

F.

* 1. yes no dk ☐ ☐ ☐

2. ☐ ☐ ☐

IV. Funding

yes no dk ☐ ☐ ☐

1. Decision: Accept activity at Level II _____

   Provisionally accept activity
   (1) high probability _____
   (2) low probability _____

   Reject at Level II _____

2. Reason for rejecting activity (indicate criteria which activity failed to meet): _____

   _____

   Information needed (from "information needed" sheet, write number(s) of relevant information item): _____

   _____

3. Evaluation questions addressed by report: _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

4. Comments (e.g., aspects of design relevant to "state-of-the-art" paper):

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

Criteria for Level III Screening

I. Treatment

Are the effects of instructional procedures assessed independently of the effects of non-activity components? (If activity components are confounded by the effects of non-activity components, check "No.")

II. Evaluation

A. Measures

1. If locally developed measures were used, was there evidence of reasonable attempts to establish validity and reliability for them?
2. Are the same or parallel test forms used for pre- and posttests when the design is norm-referenced?
3. Are measures appropriate for program participants? (Is there an absence of bunching of pre- and posttest scores near the top and the bottom of the score range?)

B. Data Collection Procedures

Were the measures administered by persons, and using procedures, that avoid bias?

C. Data Processing

Were classification and grouping of raw data for processing appropriate for methods of statistical analysis used?

D. Schedule

Is the precise data collection schedule either written or available?

E. Statistics

1. Are statistical data that characterize the activity treatment group provided or obtainable?
   a. measures of central tendency
   b. number of students in pre- and posttest groups
   c. standard deviation or other measures of dispersion
   d. measures of relationships (statistical tests)
   e. pre-test and posttest distributions
   f. correlations between pre- and posttest scores
   g. attrition rate between pre- and posttest
2. Were statistical procedures and analyses appropriate for the evaluation design?
3. When a non-equivalent comparison was used?
   a. Were statistical corrections made for differences?
   b. When the weight of evidence relies heavily on covariance procedures to adjust initial difference between groups, were other data provided to show the adequacy of the equalization process?

F. Results

1. Significance

a. Did posttest treatment scores exceed the no treatment expectation by one-third of a standard deviation? (Such results may be considered educationally significant.)
b. If local standards were used, were they specified?

2. Consistency

Did replication(s) of the activity produce consistent results or was the evaluation design and its implementation sufficiently rigorous to predict consistency of results in future applications?

III. Other Characteristics of the Activity to Consider

A. Activity Staff

1. Were role definitions available for each category of activity staff and did they contain all details required for replication?

2. Did skills and special training required for the activity staff require a reasonable training period?

B. Parent/Community Involvement

If this was a key component of the activity, did procedures and guidelines for implementing parent/community involvement contain all details required for replication?

C. Context

Can significant descriptive details about the program setting that should be taken into account in replicating the program at another site be documented?

D. Exportability

Are various activities, services, organizational details, and key procedural information amenable to wide-scale dissemination?

E. Materials

1. Can necessary instructional materials be reproduced in sufficient quantities to permit wide-scale dissemination and replication?

2. Can the cost of such materials be reasonably assumed to be within reach of school districts in the United States?

3. Are procedures and guidelines for the implementation and use of program materials specified, and do they indicate the scope and sequence of learning tasks?

F. Equipment

1. Is equipment required to operate the program reasonably obtainable by most school districts in sufficient quantities to make wide-scale dissemination and implementation feasible?

2. Can the cost of such equipment be reasonably assumed to be within reach of school districts in the United States?

G. Activities and Services

Can the procedures and services required for carrying out the exemplary activity be readily supplied to the extent necessary for wide-scale replication?

H. Complexity

Is the complexity of all media required in the activity not a limiting factor for its replication elsewhere?

I. Cost

1. What is the annual cost of the activity per pupil?
2. What is the installation cost of the activity per pupil?
3. What is the annual maintenance cost of the activity per pupil?

IV. Demographic characteristics of the Treatment and Control Groups

A. Where does the program operate (town and state)?

B. Record the following descriptive data that characterize the treatment group, if such data is provided or obtainable. (Record whatever quantitative data is provided: numbers, percentages or proportions.)

1. race
   a. Black
   b. White
   c. other (specify)
2. sex
3. socioeconomic status
   a. parent income
   b. parent occupation
   c. parent education
   d. residential area
4. size and type of community
   a. high metro
   b. low metro
   c. extreme rural
   d. urban fringe
   e. main big city
   f. medium city
   e. small places
5. grade level
6. size of treatment group

C. Record the following descriptive data that characterize the control group, if such data is provided or obtainable. (Record whatever quantitative data is provided: numbers, percentages, or proportions.)

1. race
    a. Black
    b. White
    c. other (specify)
2. sex
3. socioeconomic status
    a. parent income
    b. parent occupation
    c. parent education
    d. residential area
4. size and type of community
    a. high metro
    b. low metro
    c. extreme rural
    d. urban fringe
    e. main big city
    f. medium city
    e. small places
5. grade level
6. size of control group

Coding Form for Level III Criteria

Brief Title: _____ Program ID#: _____

State: _____ Rater: _____

Date: _____

I. ☐ Y ☐ N ☐ dk ☐ N/A

II.
- A.
  - 1. ☐ ☐ ☐ ☐
  - 2. ☐ ☐ ☐ ☐
  - 3. ☐ ☐ ☐ ☐
- B. ☐ ☐ ☐ ☐
- C. ☐ ☐ ☐ ☐
- D. ☐ ☐ ☐ ☐
- E.
  - 1.
    - a. ☐ ☐ ☐ ☐
    - b. ☐ ☐ ☐ ☐
    - c. ☐ ☐ ☐ ☐
    - d. ☐ ☐ ☐ ☐
    - e. ☐ ☐ ☐ ☐
    - f. ☐ ☐ ☐ ☐
    - g. ☐ ☐ ☐ ☐
  - 2. ☐ ☐ ☐ ☐
  - 3.
    - a. ☐ ☐ ☐ ☐
    - b. ☐ ☐ ☐ ☐

F.
- 1. ☐ Y ☐ N ☐ dk ☐ N/A
  - a. ☐ ☐ ☐ ☐
  - b. ☐ ☐ ☐ ☐
- 2. ☐ ☐ ☐ ☐

III.
- A.
  - 1. ☐ ☐ ☐ ☐
  - 2. ☐ ☐ ☐ ☐
- B. ☐ ☐ ☐ ☐
- C. ☐ ☐ ☐ ☐
- D. ☐ ☐ ☐ ☐
- E.
  - 1. ☐ ☐ ☐ ☐
  - 2. ☐ ☐ ☐ ☐
  - 3. ☐ ☐ ☐ ☐
- F.
  - 1. ☐ ☐ ☐ ☐
  - 2. ☐ ☐ ☐ ☐
- G. ☐ ☐ ☐ ☐
- H. ☐ ☐ ☐ ☐

I. ☐ Y ☐ N ☐ dk ☐ N/A
- 1. ☐ ☐ ☐ ☐
- 2. ☐ ☐ ☐ ☐
- 3. ☐ ☐ ☐ ☐

IV.
- A. ☐ ☐ ☐ ☐
- B.
  - 1.
    - a. _____
    - b. _____
    - c. _____
  - 2. _____
  - 3.
    - a. _____
    - b. _____
    - c. _____
    - d. _____
  - 4.
    - a. _____
    - b. _____
    - c. _____
    - d. _____
  - 5. _____
  - 6. _____

6.
- 1.
  - a. _____
  - b. _____
  - c. _____
- 2. _____
- 3.
  - a. _____
  - b. _____
  - c. _____
  - d. _____
- 4.
  - a. _____
  - b. _____
  - c. _____
  - d. _____
  - e. _____
  - f. _____
  - g. _____
- 5. _____
- 6. _____

Criteria for Level III Screening

You will find below a preliminary draft of instructions for applying Level III criteria to career education documents. We have made an attempt to provide a rationale and/or guidelines for those items needing explanation. No such rationale or discussion was provided for items that we regarded as self-explanatory. We did not attempt to construct an elaborate document because at this time we do not have a clear idea of the amount and quality of activities that will survive Level II screening. As documents are screened at Level II we will be able to develop, from experience, an adequate set of guidelines for applying Level III criteria. In the meantime, let us know what you think of our present effort.

I. Treatment

The purpose of this item is to rule out the rival hypothesis that non-activity components may have been in part or fully responsible for the results. For example, there may have been a strong junior achievement program operating at the same school and grade level as the career education activity; or the teacher at a given school may have often invited parents to come in and talk to the students about their work but not as part of the career education activity. These would be examples of non-activity components confounding the effects of activity components. A "No" response for this item should be accompanied by a brief explanation of the confounding non-activity component in the comments section of the Level III scoring form.

II. Evaluation

A. Measures

1. Here we are looking for reasonable attempts to establish the validity of locally developed measures. Because we cannot possibly do justice to these topics here, we will only offer brief definitions.

"Reliability concerns the extent to which measurements are repeatable by the same individual using different measures of the same attribute or by different persons using the same measure of an attribute." Standard definitions include the following:

1. Interform, or split-half reliability: the extent to which a measurement of a concept is repeatable, using a different measure on the same individual. This method requires the administration of two forms of the measuring instrument to one set of persons at one time.

2. Test-retest reliability: the extent to which a measurement is repeatable, using the same measure at different times. This method requires administration of one form of measurement to one set of persons at two times.

3. Combination of (1) and (2): extent to which a measurement is repeatable, using a different measure at different times on the same individual. This method requires the administration of two forms of the measuring instrument to one set of persons at two times.

4. Inter-judge reliability: extent to which a measurement is repeatable, using the same measure from different individuals. Two persons, one form, one time. This method requires the administration of one form of the measuring instrument to two sets of persons at one time.

Broadly speaking, by validity we mean the extent to which a measured variable corresponds to a theoretical concept. More specifically, the term "validity" is used in different ways. Two usages will be discussed here.

Content validity: Here, the assumption seems to be that agreement can be reached on what "should" be a valid measure of the concept of interest. This is the type of validity relied on by most teachers when they make up a test: they don't go through

a developmental stage to insure the validity of each test they give, but select items with "face validity." For example, they make up a set of arithmetic problems to measure what has been learned in an arithmetic class; or words to measure what has been learned in spelling; and so on.

Construct validity: Here, the concern is with links between theoretical-level concepts and observable-level variables. A common procedure for assessing the construct validity of a test is to determine to what extent all, or some, of the items correlate with each other. The assumption is that all the items must "go together" if they are in fact measuring the same concept.

2. In a norm-reference design, it is essential that the same or parallel test forms be used for the pre-and post-test. In a comparison group design, however, the fact that the pretest differs from the post-test may not be a critical problem. Switching from one standardized test to another may be acceptable in this kind of design because the comparison group makes it possible to draw reasonable conclusions.

3. If most of the pupils are getting nearly all, or hardly any, of the test items correct, the test is inappropriate for assessing their progress.

B. Data Correction Procedures

The purpose of this criterion is to rule out the hypothesis that the results were due to biased data collection procedures. For example, if measures were administered by someone who would likely be interested in achieving positive results such as a member of the school's administrative or instructional staff, then the data collection procedures would need to be examined carefully for opportunities to consciously or unconsciously bias the results. Also, for example, if the tests were turned over to activity staff for data processing and reporting, then opportunities for bias would have to be considered.

Of course, we cannot reject an activity simply because the teacher administered the tests. However, when the same person developed the tests, taught the career education activities, scored the tests, and analyzed the data, we would want to look closely for possible bias.

C. Data Processing

There are so many possible mistakes here that it is difficult to list them all. Therefore, it is probably better to wait until we have screened a lot of elements before we attempt to elaborate on this item.

D. Schedule

The purpose of this item is to rule out the hypothesis that the data collection schedule may have accounted for some of the results. For example, if the data collection schedule showed that the treatment group and control group had been given the post-test a week apart, a question is raised as to whether anything might have happened during that week that could have influenced the results such as a T.V. show on national television that dealt with career education.

E. Statistics

1. a. Common measures of central tendency are the mode, mean, and median.
   b. self-explanatory
   c. Measures of dispersion include the standard deviation, range, and variance.
   d. self-explanatory
   e. This information is essential for detecting floor and ceiling effects. (See II.A.3.)
   f. The correlations are needed for designs using regression or analysis of covariance.
   g. Most projects experience some attrition between pre and post-tests. Information regarding the attrition rate and the characteristics of students who dropped out is needed to evaluate the results of the treatment.

2. This is another item where it is probably advisable to wait until we are further along before elaborating.

3. a. Analysis of covariance (ANCOVA) is usually the method used to correct for initial differences between the comparison and treatment groups.

   b. ANCOVA is appropriate to use where individual pupils are randomly assigned to treatment and control groups or where pre-existing groups that are similar along educationally relevant dimensions are assigned to treatment and comparison groups.

ANCOVA provides an appropriate statistical adjustment to compensate for pre-test score differences between groups if these differences are due to such chance factors as random sampling fluctuations. It will not provide an appropriate adjustment for pre-test score differences which reflect non-random variables such as age, sex, race, S.E.S., etc.

II. F. Results

1. Significance

   a. One-third of a standard deviation is an arbitrary standard of educational significance. Therefore, a "No" response to this question should be considered in the light of other information before it is used as a basis for rejecting an activity. Similarly, a "Yes" response and values greater than one-third of a standard deviation should also be considered in light of other information.

   b. If local standards were used and were specified, write down what they were in the "comments" section of this form.

2. Consistency

The purpose of this item is to summarize information that will determine if similar results would be predicted if the activity (ies) was (were) replicated elsewhere. The item calls for the rater to make a judgement based on available information. Such a judgment will typically involve considering the following kinds of information: duration of the activity, sample size and the level of significance.

III. Other characteristics of the activity to consider

A. Activity Staff

1. The purpose of this item is to determine if sufficient details are provided or are available about the roles of activity staff to permit replication. The following three-point scale can be used in making this determination:
   a. no information is available
   b. some information is available, but not enough
   c. sufficient information is available
2. The purpose of this item is to determine if training that might be required to prepare the staff to replicate the activity at another site is reasonable/affordable? The following types of information should be considered in such a decision:
   a. roles for which staff are trained
   b. length of training required
   c. pre-training skills required for each role
   d. costs of training

B. Parent/Community Involvement

The purpose of this item is to determine if sufficient information is available about the parent/community involvement component of an activity to replicate it elsewhere. The following types of information should be considered in working such a determination:

a. What role did parents have in the program?
b. What role did community groups have in the program?
c. Were meetings held with parents? Why? How often?
d. How was the community kept informed?
e. If problems with parents or the community affected the program, what steps, if any, were taken to remedy the situation?

D. Exportability

The purpose of this item is to determine if the various activities, services, organizational details and key procedural information permit wide-scale dissemination. For example, activities which use a lot of home-made materials and are designed to address particular local needs would tend to be less exportable than activities which used commercially available materials and

addressed needs which were common to many sites. A simple three point scale of exportability might be as follows:

1 - nothing exportable
2 - some parts exportable
3 - everything exportable

E. Materials: Self-explanatory

F. Equipment

1. The purpose of this item is to determine if equipment required to operate the activity is reasonably obtainable by most school districts in sufficient quantities to make wide-scale dissemination and implementation feasible. For example, if necessary equipment is locally made or requires a special order that will take a long time, such equipment would be considered <u>not</u> reasonably obtainable. Again a simple three-point scale may be useful:

   a. nothing reasonably obtainable
   b. some things reasonably obtainable
   c. everything reasonably obtainable

2. The purpose of this item is to determine if equipment required to operate the activity is reasonably within the financial reach of school districts in the United States. For example, if necessary equipment is expensive or adds appreciably to the cost of educating students in the district, then such equipment may not be within reach of most school districts.

I. Costs: Self-explanatory

IV. Context of the activity

The purpose of this item is to provide enough information about the locale and school system of the activity so that others interested in instituting the program can determine whether it is suitable for their setting. With this purpose in mind, the original demographic categories were changed to those presented below. Depending on the nature of the program, the items below may refer to the state, region, community, or neighborhood. If the activity served students in a

certain county, then that county should be described. If the activity served only one school, the neighborhood from which the school's students are drawn should be described. If the setting includes many counties, districts, or neighborhoods, it may be more efficient to indicate similarities and differences across settings. Also, if the treatment group is not representative of the county, district, or school, this should be indicated.

A. a. ethnic composition
   b. sexual composition
   c. socioeconomic status
      1. parent income, occupation, education
      2. residential area
      3. unemployment rate
      4. proportion of families receiving welfare assistance
   d. size and type of community
      1. urban/ rural/suburban
      2. small/medium/big city
   e. size of treatment group
   f. grade level of treatment group
   g. population trends: patterns of influx or outflow

APPENDIX C

Form Letters and Nominations Monitoring System

LETTER TO NOMINATORS

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

13 October 1977

(name and address)

Dear _____:

The United States Office of Education has contracted The American Institutes for Research to identify evaluated K-12 career education activities of exemplary quality. We are writing to request your nomination of one or more activities that you believe adequately demonstrate significant impact. Our job will then be to solicit evaluation reports from nominees and assess the evidence of their impact.

Recent analyses of the results of the Career and Occupational Development Tests of the National Assessment of Educational Progress indicate that the career development needs of the nation's youth have been neglected. We know you share our interest in assisting educational units in the identification, installation, and evaluation of career education programs that will work for them. To this end we request that you nominate evaluated career education activities that would likely qualify as exemplary.

"Activities" may include any of the diverse efforts in career education such as a high school placement program, infusion of career education concepts into the K-6 curriculum, a project that brings community members into the schools to discuss jobs, a project that takes students to visit local businesses and industries, a guidance program for grades 8-12, or a staff development program. However, the activity must meet the following conditions:

1. It has operated for at least a year.
2. A formal evaluation of the activity has been completed since June 1974.
3. The evaluation report is written and available. If the project is not now in operation, the report adequately describes the activity.

An Equal Opportunity Employer

At the bottom of this letter, please jot down the title or description of your nominated activity(ies), and a contact person(s), and, if known, the funding agency. We need your response as soon as possible, hopefully by return mail. A stamped return envelope is enclosed. If you have questions about the project or the nominations procedures, please telephone one of us collect at (415) 493-3550.

Sincerely,

Anita Mitchell, Principal Investigator

Dewey Lipe, Project Director

Enclosures: Project Abstract
Stamped, Addressed return envelope

THANK YOU LETTER TO NOMINATORS

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

Dear Colleague:

Thank you for your prompt response to our request for nominations of career education activities that have been evaluated. We are currently in the process of screening nominees in an effort to identify those with the strongest evidence of their efficacy. Those selected will be visited by a project team, and a package will be developed to explain the program in such a way that it can be implemented by other school districts. Best features of evaluation designs will be incorporated into evaluation models that will be developed as part of the project.

Your participation in this effort is deeply appreciated. We will inform you if your nominee(s) is among those selected for report and possible dissemination. Again, thank you for your help.

Sincerely yours,

Anita M. Mitchell

Anita M. Mitchell, Principal Investigator

Dewey Lipe

Dewey Lipe, Director
Identification of Evaluated, Exemplary Career
Education Activities Project

An Equal Opportunity Employer

LETTER TO NOMINEES

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

25 October 1977

(name and address)

Dear _____:

As Ken Hoyt stated in his memorandum, the United States Office of Education has contracted AIR to identify evaluated career education activities that have demonstrated impact. An abstract is attached for your information. We at AIR have asked key people across the country to nominate possible candidates. Your career education activity _____ was nominated. Our job now is to contact nominees to ask for evaluation reports and/or other documents and reports that describe the activity and that present evaluation data regarding its effectiveness.

We invite you now to send available documents to us if the nominated activity fits the following conditions:

1. It has operated for at least a year and is still operating.
2. A formal evaluation has been completed since June 1974.
3. The evaluation report is written and available.
4. The activity has not been packaged and sold commercially.

The documents we would need are your most recent reports containing evaluation data and activity descriptions and, if you developed any measurement instruments locally, a copy of each. If you have no extra copies of these documents, AIR will reimburse you for copying charges. Just include a statement to that effect in the package.

Please help us by sending the requested report(s) promptly as we hope to complete the identification and screening phases by early November. Send the report(s) by first class mail and also provide the information requested on the attached Identification Sheet along with the materials you send. If you so request it, AIR will reimburse you for postage.

An Equal Opportunity Employer

If you decide against participating, please send us a note in the enclosed postage paid, addressed envelope. It will help us if you would also indicate the basis for your decision.

Your prompt response will constitute an important contribution to the national effort to bring career education to all the youth of the nation.

Thank you for your help.

Sincerely yours,

Anita M. Mitchell, Principal Investigator

Dewey Lipe, Project Director

Enclosures: Memo from Ken Hoyt
Project Abstract
Identification Sheet
Postage paid return envelope

THANK YOU LETTER TO NOMINEES

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

Dear Colleague:

The documents you sent us arrived safely. We are sending you this form letter response just to let you know that we have the documents and that we are reading them.

We will be calling or writing you if we have questions that we don't find answered in your materials. In the meantime, thank you very much for responding.

Very sincerely,

Anita M. Mitchell

Anita M. Mitchell

Dewey Lipe

Dewey Lipe

An Equal Opportunity Employer

LETTER TO SELF-DISQUALIFIED PROJECTS

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ●415/493-3550

(date)

(name and address)

Dear _____:

Thank you for your letter of _____(date)_____. Although we were sorry not to be able to include your project in our survey, we appreciate your taking the time to let us know your reasons for not participating.

Good luck in your future efforts in career education.

Sincerely,

Pat Spurr
Project Staff

An Equal Opportunity Employer

FOLLOW-UP LETTER TO NOMINEES

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

8 November 1977

(name and address)

Dear _____:

The United States Office of Education has contracted AIR to identify evaluated career education activities that have demonstrated impact. We have asked key people across the country to nominate possible candidates. Your career education activity entitled "_____" was nominated. Our job now is to contact nominees to ask for evaluation reports and/or other documents that describe the activity and that present evaluation data regarding its effectiveness.

We have already sent you one request under a memorandum from Ken Hoyt. This second request is being sent because of the importance of the project and because we have not yet heard from you. We invited you to send available documents if the nominated activity fits the following conditions:

1. It has operated for at least a year and is still operating.
2. A formal evaluation has been completed since June 1974.
3. The evaluation report is written and available.
4. The activity has not been packaged and sold commercially.

The documents we would need are your most recent reports containing evaluation data and activity descriptions and, if you developed any measurement instruments locally, a copy of each. If you have no extra copies of these documents, AIR will reimburse you for copying charges. Just include a statement to that effect in the package.

Please help us by sending the requested report(s) promptly. We must complete the identification and screening phases by the end of November. It will not be possible for us to further postpone this date. Your reports will have to be in our hands no later than November 21 for us to meet this deadline. Send the report(s) by first class mail and also provide the information requested on the attached Identification Sheet along with the materials you send. If you so request, AIR will reimburse you for postage.

If you decide against participating, please send us a note in the enclosed postage paid, addressed envelope. It will help us if you would also indicate the basis for your decision.

An Equal Opportunity Employer

We hope very much to receive your documents. Your prompt response will constitute an important contribution to the national effort to bring career education to all the youth of the nation.

Thank you very much for your help.

Sincerely yours,

Anita M. Mitchell, Principal Investigator

Dewey Lipe, Project Director

Enclosures: Identification Sheet
Postage paid, addressed envelope

FOLLOW-UP LETTER TO IDENTIFIED ACTIVITY DIRECTORS

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

23 December 1977

Dr. Norman Steinaker
Project Specialist
Ontario-Montclair School District
950 West "D" Street
Box 313
Ontario, CA 91761

Dear Norm:

I was pleased to talk with you the other day and to begin preparations for our visit to Ontario-Montclair on January 5th and 6th.

If I overlooked mentioning it in our phone conversation, I will take this opportunity to inform you that the Ontario-Montclair Project MATCH is one of 10 career education projects nationwide, selected for their exemplary evaluation designs and evidence of effectiveness.

Enclosed with this letter is a copy of our preliminary abstract on Project MATCH that contains summary information related to key evaluation criteria. When you read it, you will see that our information is not complete. Our hope is that before our visit next month you will be able to confirm the accuracy of the information included and fill in sections where the information is either incomplete or lacking altogether. In this regard, please feel free to call if you have questions since both Octave Baker and I will be in the office all next week.

Octave and I will make up the team that will visit your project in January. In addition, Dr. Anita Mitchell, who is the project principal investigator, will join us for the better part of both days. While we will want to talk with staff and students from all the various sectors of your project, our major discussions will need to be with your evaluation personnel and you.

Either Octave or I will most likely phone you next week to follow through on the detailed planning for our visit.

Sincerely yours,

Jack A. Hamilton, Ph.D.
Associate Project Director

Encl - 1

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MONITORING CONTACTS WITH NOMINATORS AND CANDIDATE ACTIVITY DIRECTORS

Contacting Activity Nominators

This section describes the procedures used in contacting nominators of candidate career education activities, and in processing their nominations.

Requesting and Receiving Nominations

Nominator list. As soon as the domain of nominators of exemplary career education activities had been defined, the names and addresses of the nominators were typed onto magnetic cards using the IBM Mag Card II typewriter. The names and addresses were first typed on an 8-1/2" x 11" sheet of paper with about 10 entries per page; then, corrections in typing were made and the cards were also corrected. This step produced a 40-page list of 296 names and addresses of nominators; this was called the Nominator List. As each letter requesting nominations was sent to a nominator, the date of the letter was recorded on the Nominator List.

As nominators responded to the letters requesting nominations of evaluated, exemplary career education activities, the following procedures were used for logging in the nominations. As letters were received from the nominators with a nomination(s) of an exemplary career education activity, the name of the nominator was checked and the date recorded on the Nominator List. Any revisions necessary in name or address were made on the Nominator List. If nominators requested a copy of the findings of the project, an "X" was placed next to their names for future reference.

Call/contact file. Each nominated activity was given an "ID number" starting with 1 and continuing chronologically in order of receipt of each activity. The ID number, activity title, director's name, address, and phone number, and name of nominator were entered on the Call/Contact File. This file was used to record the following contacts with the activity: (1) date initial letter was sent; (2) date of follow-up letter, if any; (3) date of receipt of evaluation

report; and (4) date of self-disqualification, if any.

Alphabetical file by state. In addition to recording activity information in the Call/Contact File, project staff entered each nominated activity, activity director, address, and ID number on a separate page by state. This Alphabetical File by State enabled duplicates to be checked easily by checking under the state name and then searching for a duplicate activity name or activity director. To facilitate this process, one sheet listing all the state names was placed in the front of the folder; as nominations were received from each state, that state's name was checked off. In this way, it could be quickly determined whether or not any nominations had been received from a particular state. A thank you letter was sent to each nominator.

Nomination letters. Nomination letters were filed by ID number. If a nominated activity had already been nominated by another person, the new nominator's name was added to the Call/Contact File and the second nominator letter was filed with the original letter nominating that activity. Each of the additional nominators was also sent a thank you letter.

Non-response or referral file. If a letter sent to a nominator resulted in no activities being nominated or if the person referred us to another person, the letter was filed in the Non-Response or Referral file. Undeliverable letters which were returned were checked off, dated, and marked "Returned" on the Nominator List.

Nominees list. To produce a Nominees List, the names of the nominated activity directors and their addresses were typed on magnetic cards following the same procedure used in compiling the Nominator List. The names and addresses were first typed onto an 8-1/2" x 11" sheet of paper, with about 10 entries per page. Ultimately, the list totalled 44 pages containing 394 nominations.

Contacting Candidate Activity Directors

Each nominated activity director on the Nominees List was sent a letter. In the letters, project staff explained the purposes of the study and how the activities being contacted had been identified. Also stressed was the need for evidence of activity effectiveness that would demonstrate success. A minimum requirement for this evidence was that some comparison standard be

provided so that gains made by activity participants could be clearly attributed to the impact of the career education activity. A copy of the activity's objective evaluation report was requested and, if not included in the report, the following information was also solicited:

- Activity developer;
- Source and level of funding;
- Years in which the program has operated, and years in which evaluation data were collected; and
- Target population.

In addition, an Information Sheet on which to record the name and address of the activity director was included in each letter.

Receiving Evaluation Reports

The following procedures were used for receiving and filing the evaluation reports:

The Alphabetical File by State was referenced; if the report were from a previously nominated project, the project ID number was checked off and dated on the Alphabetical File by State. Then, the date received was recorded on the Call/Contact File, name and address changes were made in the Call/Contact File, and nominee's name was checked off and dated on the Nominees List. A thank you letter was sent to each nominee who submitted evaluation reports.

Card file. The ID number was marked on the received evaluation materials; a 5" x 8" file card was typed with the ID number, name of the activity, and state on the card. These cards were placed in the Card File which was used as the checkout file and as a reference for determining the status of the report in the evaluation procedure (i.e., "Passed," or "Not Passed" at Levels I, II, or III).

Document file. Each report was placed in a pendaflex folder with the ID number indicated on the label. The folders were arranged numerically and were known as the Document File.

Call sheet. If an Information Sheet were returned with the evaluation materials, that sheet was stapled to the back of the Call Sheet and both were placed in the front of the folder containing the evaluation materials. The

Call Sheet contained the ID number and spaces for the date and purpose of any telephone calls to anyone related to the project. If no Information Sheet was returned with the materials, the Call Sheet was placed in the folder by itself. Copies of any correspondence with activity staff, if any, were stapled to the Call Sheet behind the Information Sheet. A thank you letter was sent to each nominee who submitted evaluation reports.

Availability of reports. As the evaluation reports came in, a list was made of the ID numbers of reports for each day. The list of numbers was given to the staff members in charge of preliminary screening of nominated programs so that they would know which reports were available for analysis.

Self-disqualified activities. If the directors of nominated career education activities responded by stating that their activities did not meet AIR's preliminary qualifications for an evaluated exemplary career education activity, those individuals were sent self-disqualifying thank you letters. In the Call/Contact File and Alphabetical File by State, those activities were marked "self-disqualified."

Suspense file. To assure receipt of a maximum number of evaluation reports, a suspense file was established and, where necessary, a follow-up letter was sent.

In summary, evaluation documents were sent by 257 activities; 137 other activities did not submit materials.

APPENDIX D

Social Fairness Form

Activity_____ Date_____

Location_____ Activity Director_____

_____

Activities and materials should be socially fair with regard to race, sex, age, economic status, and handicap. Site visitors should be especially alert for evidence of bias in these five areas.

1. Race

____Includes extensive bias.
____Includes a few instances of bias.
____Is free of bias.
____Positive action was taken to eliminate bias.

Comments:

2. Sex

____Includes extensive bias.
____Includes a few instances of bias.
____Is free of bias.
____Positive action was taken to eliminate bias.

Comments:

3. Age

____Includes extensive bias.
____Includes a few instances of bias.
____Is free of bias.
____Positive action was taken to eliminate bias.

Comments:

4. Economic Status

____Includes extensive bias.
____Includes a few instances of bias.
____Is free of bias.
____Positive action was taken to eliminate bias.

Comments:

5. Handicap

____Includes extensive bias.
____Includes a few instances of bias.
____Is free of bias.
____Positive action was taken to eliminate bias.

Comments:

Assessment of possible harm to users:

Prepared by_____
in cooperation with local activity staff.

APPENDIX E

List of Materials Produced Under Contract 300-77-0303

Submissions to the Joint Dissemination Review Panel

Title	Designation	Date	Author(s)
CAREER DEVELOPMENT PROGRAM, Akron Public Schools, Akron, Ohio	Tech. Report 1(1)	30 April 1978	Susan L. McBain
DEVELOPMENTAL CAREER GUIDANCE PROJECT, Pima County, Arizona	Tech. Report 1(2)	30 June 1978	Susan L. McBain Steven M. Jung
FOSTERING A TEAM APPROACH TO CAREER EDUCATION, Prince George's County Public Schools, Upper Marlboro, Maryland	Tech. Report 1(3)	28 Feb. 1978	Dewey Lipe
PROJECT CAP, Boston Mountains Educational Cooperative, Greenland, Arkansas	Tech. Report 1(4)	30 April 1978	Jack A. Hamilton Carol B. Kaplan
PROJECT CDCC, Coloma Community School District, Coloma, Michigan	Tech. Report 1(5)	28 Feb. 1978	Carol B. Kaplan
PROJECT CERES, Ceres Unified School District, Ceres, California	Tech. Report 1(6)	30 April 1978	Octave V. Baker
PROJECT EPIC, EPIC, Inc., Fort Lauderdale, Florida	Tech. Report 1(7)	30 April 1978	Dewey Lipe
PROJECT EPIC, Jefferson County Public Schools, Louisville, Kentucky	Tech. Report 1(8)	30 April 1978	Carol B. Kaplan
PROJECT EQUALITY, Highline Public Schools, Seattle, Washington	Tech. Report 1(9)	30 April 1978	Susan L. McBain Dewey Lipe
PROJECT MATCH, Ontario-Montclair School District, Ontario, California	Tech. Report 1(10)	28 Feb. 1978	Octave V. Baker

Activity Descriptions

Title	Designation	Date	Authors
CAREER DEVELOPMENT PROGRAM, Akron Public Schools, Akron, Ohio	Tech. Report 2(1)	30 June 1978	Susan L. McBain Nicholas J. Topougis

Title	Designation	Date	Authors
DEVELOPMENTAL CAREER GUIDANCE PROJECT, Pima County, Arizona	Tech. Report 2(2)	30 June 1978	Susan L. McBain Joyce McKay
FOSTERING A TEAM APPROACH TO CAREER EDUCATION, Prince George's County Public Schools, Upper Marlboro, Maryland	Tech. Report 2(3)	30 June 1978	Dewey Lipe Theresa Gushee
PROJECT CAP, Boston Mountains Educational Cooperative, Greenland, Arkansas	Tech. Report 2(4)	30 June 1978	Jack A. Hamilton Jeanne Leffler
PROJECT CDCC, Coloma Community School District, Coloma, Michigan	Tech. Report 2(5)	30 June 1978	Carol B. Kaplan Lee Downey
PROJECT CERES, Ceres Unified School District, Ceres, California	Tech. Report 2(6)	30 June 1978	Octave V. Baker Virginia Lish
PROJECT EPIC, EPIC, Inc., Fort Lauderdale, Florida	Tech. Report 2(7)	30 June 1978	Dewey Lipe Tom Justiz
PROJECT EPIC, Jefferson County Public Schools, Louisville, Kentucky	Tech. Report 2(8)	30 June 1978	Carol B. Kaplan Barbara Preli
PROJECT EQUALITY, Highline Public Schools, Seattle, Washington	Tech. Report 2(9)	30 June 1978	Jack A. Hamilton John D. Ross
PROJECT MATCH, Ontario-Montclair School District, Ontario, California	Tech. Report 2(10)	30 June 1978	Octave V. Baker Norman Steinaker

Evaluation Handbook

Title	Designation	Date	Authors
WAYS TO EVALUATE DIFFERENT TYPES OF CAREER EDUCATION ACTIVITIES: A Handbook of Evaluation Models	Tech. Report 3	31 July 1978	Anita M. Mitchell With Models by A. B. Chalupsky O. V. Baker, J. A. Hamilton, D. H. McLaughlin G. B. Jones S. M. Jung C. B. Kaplan, P. R. Dahl A. M. Mitchell

Final Technical Report

Title	Designation	Date	Authors
IDENTIFICATION OF EVALUATED, EXEMPLARY ACTIVITIES IN CAREER EDUCATION (K-12)	Final Report	31 July 1978	Jack A. Hamilton Anita M. Mitchell

Executive Summary

EXECUTIVE SUMMARY OF FINAL TECHNICAL REPORT: IDENTIFICATION OF EVALUATED, EXEMPLARY ACTIVITIES IN CAREER EDUCATION (K-12)	Executive Summary	31 July 1978	Jack A. Hamilton Anita M. Mitchell